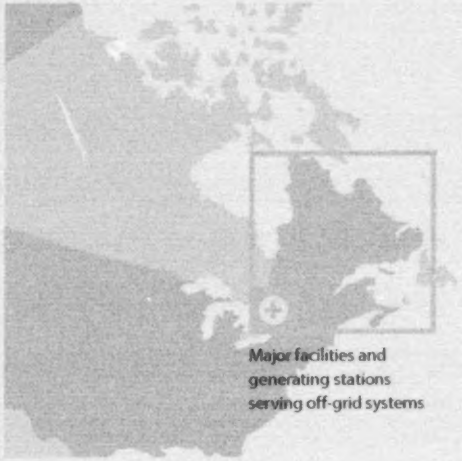
SUSTAINABILITY
REPORT 2013
Hydro
Québec

HYDRO-QUÉBEC

Hydro-Québec generates, transmits and distributes electricity. Its sole shareholder is the Québec government. While primarily using hydropower, it supports the development of other technologies—such as wind energy and biomass—through purchases from independent power producers. It also conducts R&D in energy-related fields, including energy efficiency. The company has four divisions:



Major facilities and generating stations serving off-grid systems

HYDRO-QUÉBEC PRODUCTION

generates power for the Québec market and sells power on wholesale markets.

HYDRO-QUÉBEC TRANSÉNERGIE

operates the most extensive transmission system in North America for the benefit of customers inside and outside Québec.

HYDRO-QUÉBEC DISTRIBUTION

provides Quebecers with a reliable supply of electricity. To meet needs beyond the annual heritage pool, which Hydro-Québec Production is obligated to supply, it mainly uses a tendering process. It also encourages its customers to make efficient use of electricity.

HYDRO-QUÉBEC ÉQUIPEMENT ET SERVICES PARTAGÉS

and Société d'énergie de la Baie James (SEBJ), a subsidiary of Hydro-Québec, design, build and refurbish generating and transmission facilities, mainly for Hydro-Québec Production and Hydro-Québec TransÉnergie.

On the cover Lac Maurice, in the Minganie region. Over the summer, Arctic char caught in lakes affected by development of the Romaine complex were transferred here. Our goal is to preserve the biological diversity of the region's aquatic wildlife.

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Supplying clean energy helps ensure quality of life. Meeting people's electricity needs in a sustainable way is very important. It is also crucial to use resources wisely and preserve the quality of the environment for future generations. Québec long ago opted for hydroelectricity, a clean, renewable energy source with known, well-controlled environmental impacts. Today, Québec is actively involved in the fight against climate change in North America.

Hydro-Québec has a sustainability vision that goes well beyond the environment. We endeavor to see that stakeholders participate in our decisions. We are also determined to contribute to the province's economic vitality.

At the Îles de Varennes, 315-kV and 735-kV transmission lines span the Saint-Laurent (St. Lawrence River).

INTERVIEW WITH THIERRY VANDAL, PRESIDENT AND CHIEF EXECUTIVE OFFICER

How do you see sustainability management at Hydro-Québec?

T. V.: In my view, sustainability management involves making choices that ensure a balance between the environmental, social and economic impacts of our actions. All our decisions, big or small, must help maintain this balance. For this, we count on competent employees who are committed to sustainability. Hydro-Québec is able to meet this challenge thanks to them.

All our development projects must fulfill our commitment to sustainability. They must be favorably received by the host communities while also representing an excellent environmental and economic option. By way of example, the Eastmain-1-A/Sarcelle/Rupert project, which was completed in 2013, was cited by the Observatoire des énergies renouvelables (Observ'ER) as "a prime example of how to incorporate environmental constraints" in its 12th global inventory of electricity production from renewable sources. Observ'ER is a world reference in renewable energy and sustainable development.

What were the sustainability highlights for Hydro-Québec in 2013?

T. V.: Year after year, Hydro-Québec both plays a key role in the province's economy and enables Québec to post one of the lowest greenhouse gas emission rates per capita in North America. Over 99% of our output comes from renewable energy sources. What's more, the electricity sector accounts for barely 0.7% of the province's GHG emissions. This is fundamental to our mission and represents a major asset in terms of sustainability.

The first highlight involves generation, and the ongoing development of the Romaine complex, the second-largest infrastructure project currently under way in Canada. It will allow us to expand our renewable energy portfolio and stimulate substantial regional economic activity at the same time.

The second highlight, in customer service, is the continued rollout of advanced metering infrastructure. Once this process is complete, 3.75 million next-generation meters will be installed all across the province. In doing this, we are laying the groundwork for a smart distribution grid that will open up vast possibilities and offer undeniable advantages. For customers: billing based on actual use rather than estimates, fast outage detection and personalized consumption management capability. For the environment: several hundred tonnes of greenhouse gas emissions avoided by taking numerous vehicles used for meter reading off the road. Finally, it will yield an estimated $80 million in annual savings, which will also benefit customers.

The third highlight pertains to financial results: Hydro-Québec recorded a result from continuing operations of $2.94 billion, a new record for the company. We are very proud of this increase in our profitability, which is attributable to growth in our export revenues as well as cost reductions at every level of the organization. This result speaks well for the expertise, professionalism and determination of Hydro-Québec's entire workforce.

What will be the main issues facing the company in 2014?

T. V.: We have many commissionings scheduled for 2014: several facilities will be added to the transmission system and Romaine-2 generating station will begin producing electricity. The cold winter we experienced in 2013–2014 is a reminder of the value and particular qualities of our hydropower output: namely, clean, reliable energy that can be generated as needed by our customers, such as at times of extreme cold weather.

We must keep on investing in transmission in order to maintain system reliability. We were involved in more than 1,300 transmission projects throughout Québec in 2013. Some of these will carry on in 2014 and the years to come. They include construction of the 735-kV line that will link Romaine-2 generating station to Arnaud substation, in the Côte-Nord region, addition of a 735-kV section to Bout-de-l'Île substation—the first facility of its kind on the island of Montréal—and construction of Duchesnay substation to meet demand growth in the northwest portion of metropolitan Québec. Siting a transmission line route is not always a unanimous choice. That's why we must continue our meetings and discussions with the communities concerned so that we can find a solution that is acceptable to all parties.

We are also going forward with our investments in distribution throughout the province. In the last decade, we have devoted $7 billion to this effort, including $2.8 billion for meeting increased demand and $1.3 billion for asset sustainment. Massive-rollout distribution projects, such as the advanced metering infrastructure, affect all local communities and generate some concerns. We will therefore continue to meet with municipalities and distribute information to keep customers up to date.

For a number of years, Hydro-Québec has sold renewable energy to the New England states. We are prepared to contribute even more to achieving New England's objective of increasing the share of renewables in its energy mix. Various American states are also aiming to reduce their greenhouse gas emissions. Two transmission line projects currently under study could further promote our exports to the U.S. Northeast.

And elsewhere in the world?

T. V.: I am particularly aware of the fact that 1.2 billion people on this planet don't have access to electricity. In a world dominated by information technologies that depend on electric power, regions of the world where this resource is scarce have difficulty developing. I believe that, for many countries, the solution lies in the development of renewables, based on a balance between large-scale production and distributed generation.

ABOUT THIS REPORT

The *Sustainability Report 2013* describes Hydro-Québec's performance with respect to its main environmental, social, economic and governance issues. This edition, published in May 2014, is the twelfth such report produced by Hydro-Québec.

SCOPE

The *Sustainability Report 2013* largely addresses the issues and impacts of Hydro-Québec's activities in Québec from January to December 2013.

NEW FEATURES

- Design suited to the digital format.
- A more interactive format, including videos and additional details available on the Sustainability Web site.
- Presentation of the results of a survey, conducted in fall 2013, of stakeholder satisfaction with the content of the *Sustainability Report 2012*.

MATERIALITY ANALYSIS

Hydro-Québec consulted internal and external stakeholders in fall 2011 on the materiality of the subjects addressed in its Sustainability Report. The object was to define the major issues to be discussed in the report; other issues are covered only on the Web site. To learn the results of the materiality analysis and the approach used for this exercise, consult the Materiality analysis section of the sustainability Web site. In light of the results of this analysis, the company has revised the report structure, set priorities in the treatment of certain issues and focused greater attention on putting the results in context, among other changes.

In fall 2013, Hydro-Québec surveyed the stakeholders consulted in 2011 as well as subscribers to a major Québec online news source devoted to sustainability. The objective: ascertain their degree of satisfaction with the content of the *Sustainability Report 2012* and determine whether the report's structure and content met their expectations. The main results are:

- Stakeholders who were very or completely satisfied with the structure of the *Sustainability Report 2012*: 93%.
- Overall level of satisfaction with the content of the report: 7.7 out of 10.
- Generally speaking, stakeholders found the report complete, clear and easy to consult, although it was considered a little too technical by some respondents. The topics covered were judged relevant. The main improvements suggested are the following:
  - Elaborate further on the company's sustainability objectives and the means proposed to achieve these targets.
  - Present accurate, balanced information with greater discussion of difficulties encountered.
  - Include more details on the environmental impacts of hydropower generation, the consultations held prior to project construction and environmental protection in general.

EXCLUSIVE WEB CONTENT

- Materiality analysis: approach and results
- Hydro-Québec's GRI compliance

COMMUNICATION TOOLS

To reach the largest possible number of stakeholders, Hydro-Québec employs various tools for communicating and reporting on its sustainability:

- *Sustainability Report 2013*
- A sustainable development Web site containing further details
- A brochure presenting 2013 sustainability highlights
- *Sustainable Development Action Plan 2013–2016*
- A section of the *Annual Report 2013* dedicated to sustainability
- Videos
- Presentations at various events (exhibitions, conferences, symposiums, etc.)

APPLICATION OF RECOGNIZED STANDARDS

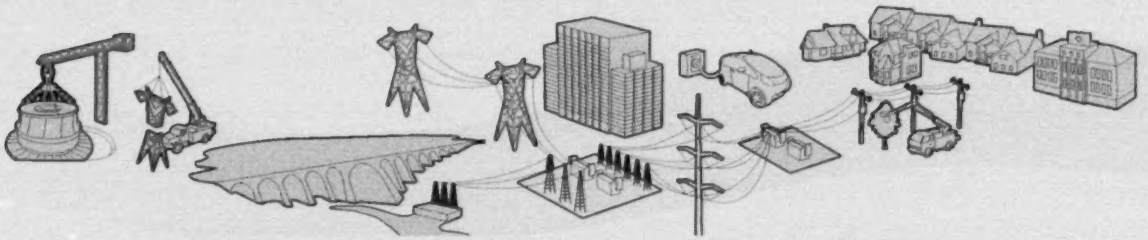
Stakeholders expect Hydro-Québec's Sustainability Report to be complete and that the information presented should be accurate and balanced. Accordingly, this report draws on the Global Reporting Initiative (GRI) G3.1 guidelines and Electric Utilities Sector Supplement. These standards ensure the credibility and quality of sustainability reporting. The GRI has confirmed that the report complies with application level A^+ of its six-level guidelines. Readers can consult the partial GRI index on page 63 of this report or the complete index in the Global Reporting Initiative (GRI) section of Hydro-Québec's Web site.

The information contained in this report has been carefully gathered and validated. In addition, an outside firm conducted an independent evaluation of some quantitative data and verified compliance with the AA1000APS AccountAbility Principles Standard (2008). Verified data are accompanied by the symbol ✓. An independent assurance statement is supplied on page 69.

TELL US WHAT YOU THINK

We'd like to know what you think of our report. Please submit your questions and comments.

VALUE CHAIN



The value chain includes all activities that create value, from product design to service provision. At Hydro-Québec, we integrate criteria for environmental protection, social acceptability and economic development into every link in this chain.

	CONSTRUCTION AND SHARED SERVICES	GENERATION	TRANSMISSION	DISTRIBUTION AND CUSTOMER SERVICE	TECHNOLOGICAL INNOVATION	MANAGEMENT AND SUPPORT OF OUR BUSINESS UNITS
MAIN ACTIONS	▪ Prevent and manage environmental impacts ▪ Contribute to the socioeconomic development of the region and maximize economic spinoffs from projects ▪ Design and carry out projects in collaboration with local communities ▪ Complete projects within budget and on schedule ▪ Practise sustainable procurement, manage buildings and residual materials, and provide transportation services	▪ Generate electricity from renewable sources ▪ Manage watersheds, taking into account their use by communities ▪ Protect water bodies and preserve wildlife and vegetation (including their diversity) ▪ Increase the company's profitability through the sale of electricity	▪ Harmoniously integrate equipment (lines and substations) into their surroundings and reduce their impacts on the environment ▪ Effectively manage intermittent wind energy output while guaranteeing service quality and reliability ▪ Maintain line rights-of-way, taking into account sensitive elements in the area	▪ Ensure a reliable supply of electricity and promote renewables ▪ Ensure high-quality service for Quebecers ▪ Encourage customers to save energy ▪ Support low-income customers experiencing payment difficulties and maintain their access to electricity ▪ Promote safe use of electricity	▪ Implement innovative solutions to ensure facility safety and long-term operability ▪ Contribute to the development and integration of renewables ▪ Contribute to the development of electric transportation ▪ Develop and implement information and communication technologies (ICTs) that reduce the environmental impact of the company's activities	▪ Oversee risk management ▪ Establish and supervise the application of codes of conduct ▪ Maintain a well-qualified, committed workforce ▪ Ensure facility security and public safety ▪ Ensure effective communication and ongoing relations with communities ▪ Make community investments
A FEW FIGURES – 2013	▪ 3,325 employees, including 77% governed by an environmental management system ▪ One hydropower project under construction: the Romaine complex ($6.5 billion) ▪ Over 1,200 projects for Hydro-Québec Production and Hydro-Québec TransÉnergie ▪ Procurement of goods and services: $3.5 billion ▪ Volume of activity: $3.1 billion	▪ 3,298 employees, including 90% governed by an environmental management system ▪ 62 generating facilities connected to the main grid, including 60 hydropower stations (38 run-of-river) ▪ 26 large reservoirs, 656 dams and 97 control structures ▪ Net result: $1,930 million	▪ 2,874 employees, all governed by an environmental management system ▪ 516 substations, 33,613 km of lines and 170,246 ha of line rights-of-way to be maintained ▪ 17 interconnection points with the Atlantic provinces, Ontario and the U.S. Northeast ▪ Net result: $513 million	▪ 6,264 employees, all governed by an environmental management system ▪ 25 generating facilities supplying off-grid systems: 24 thermal generating stations and 1 hydroelectric generating station ▪ 114,843 km of lines ▪ 4,141,990 customer accounts in Québec ▪ Net result: $410 million	▪ 2,563 employees, including 97% governed by an environmental management system ▪ Extensive private telecommunications network with 1,022 geographic locations throughout Québec ▪ Annual budget allocated to Hydro-Québec's research institute: $100 million	▪ 1,919 employees, who are not governed by an environmental management system ▪ $31 million in community investments, including $18.6 million in donations and sponsorships

OUR ACTIONS

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Atlantic salmon spawning grounds and nurseries will be developed as mitigation measures next to the future Romaine-1 generating station.

GOVERNANCE

Hydro-Québec's head office in Montréal. The building is certified BOMA BESt – Level 3, a reflection of its excellent performance in terms of energy efficiency and environmental protection.

Marie-José Nadeau, Executive Vice President – Corporate Affairs and Secretary General, was named Chair of the World Energy Council (WEC) in October 2013. She is the first woman to hold this position. Recognized by the United Nations, WEC represents some one hundred countries and has nearly 3,000 member organizations.

SUSTAINABILITY-ORIENTED GOVERNANCE

Hydro-Québec is a government corporation that supplies Québec with electricity generated almost exclusively from renewables. The company therefore plays an important role in helping its sole shareholder, the Québec government, achieve the main goals outlined in its *Government Sustainable Development Strategy 2008-2013*.

Since over 99% of the electricity distributed by Hydro-Québec comes from renewable sources, the company contributes significantly to making Québec one of the North American regions with the lowest greenhouse gas emissions per capita (objectives 7 and 8 in the government strategy).

Hydro-Québec also contributes, within the limits of its mandate, to the achievement of several other of the 29 objectives in the Government Sustainable Development Strategy. In addition, the company makes every effort to align its actions with its shareholder's policies and guidelines, such as the 2011–2016 strategy to ensure the occupancy and vitality of territories (in French only), as well as Québec's Economic Policy – *Putting Jobs First* and the *Transportation Electrification Strategy 2013–2017*, both of which were adopted in 2013.

Governance at Hydro-Québec is based on 13 company policies approved by the Board of Directors. Sustainability monitoring is provided by the Environment and Public Affairs Committee.

EXCLUSIVE WEB CONTENT

- Policies and codes of conduct
- Senior Management and Board of Directors
- Hydro-Québec Annual Report 2013
- Confidentiality, privacy and security
- Act respecting access to documents

Traders and analysts at work on Hydro-Québec's energy trading floor. They monitor conditions on the export market, looking for interesting business opportunities for the company.

The La Grande-3 development, on La Grande Rivière, in the Baie-James region. Hydropower is a prime energy source to combat global warming.

FINANCIAL RESULTS

In 2013, Hydro-Québec posted a result from continuing operations of $2.94 billion, a performance that surpassed the 2012 result and the projections in our *Strategic Plan 2009–2013*. This increase is attributable to a combination of growth in our export revenues and cost reductions at every level of the organization.

Moreover, this profitability enables us to pay a yearly dividend to the Québec government. In 2013, the dividend totaled $2,207 million.

SUSTAINABILITY STRATEGY

GOVERNMENT GUIDELINES

- *Sustainable Development Act*
- 2011–2016 strategy to ensure the occupancy and vitality of territories
- Québec's Agenda 21 for culture
- Québec Energy Strategy 2006–2015
- Québec's Economic Policy – *Putting Jobs First*
- *Transportation Electrification Strategy 2013–2017*
- Etc.

HYDRO-QUÉBEC'S SUSTAINABLE DEVELOPMENT ACTION PLAN 2013–2016

Ten concrete initiatives

HYDRO-QUÉBEC RANKS THIRD AMONG BRANDS AND ORGANIZATIONS CONSIDERED MOST RESPONSIBLE

In December, the Observatoire ESG UQÀM de la consommation responsable (in French only) published its *Baromètre 2013 de la consommation responsable*, in which Hydro-Québec ranked third among brands and organizations considered most responsible. Based on a survey of 1,104 participants carried out between September 21 and October 1, 2013, the *Baromètre* measures the extent to which Quebecers consume responsibly. The report looks at various elements, such as Quebecers' shopping preferences, attitudes and behaviors, and their motivations for responsible consumption.

MAIN SUSTAINABILITY GOVERNANCE ACTIVITIES

Performance reporting — Accountability

BOARD OF DIRECTORS

- **Seven committees, including:** Governance and Ethics, Environment and Public Affairs, Human Resources
- **Approval or review of publications, including:** company policies, code of ethics, Strategic Plan, Business Plan, Annual Report, Sustainability Report

PRESIDENT AND CHIEF EXECUTIVE OFFICER

- **Approval of the following documents:** internal guidelines, Code of Conduct for employees, Sustainable Development Action Plan
- **Annual management reviews pertaining to environment and health and safety**

HYDRO-QUÉBEC ADMINISTRATIVE UNITS

- **Various internal networks discussing issues such as environment and workplace health and safety**
- **Maintenance of certified management systems**
- **Environment and sustainability training**
- **Annual management reviews pertaining to environment**

WHAT ROLE DOES THE ENVIRONMENT AND PUBLIC AFFAIRS COMMITTEE PLAY?

MANDATE

- Provide opinions and make recommendations to the Board concerning:
  - environmental management and compliance, and integration of sustainable development principles
  - public health and safety
  - community relations
  - social responsibility
  - contribution to the community
  - public image
- Receive environmental incident reports and related claims, opinions, investigations and legal proceedings.

2013 ACTIVITIES

- Studied the results of the President and CEO's annual environmental management review as well as semiannual reports on environmental compliance.
- Reviewed the *Sustainability Report 2012*
- Recommended that the Board approve the granting of donations and sponsorships according to the criteria and rules set out in the Donation and Sponsorship Policy.
- Reviewed annual results with respect to the company's communication and public relations activities, and the financing of university research chairs and international cooperation initiatives in French-speaking nations.
- Reviewed the annual activity reports of the liaison committees established by the company with groups representing Québec agricultural producers and municipalities.

Sustainable Development Action Plan 2013–2016

In March 2013, Hydro-Québec published its *Sustainable Development Action Plan 2013–2016*, which continues efforts laid out in its previous plan. Through these efforts, the company contributes to the implementation of Québec's Government Sustainable Development Strategy, its strategy to ensure the occupancy and vitality of territories (in French only) and its Agenda 21 for culture. In addition, the numerous initiatives presented in this report reflect Hydro-Québec's contribution to the application of sustainability principles.

OVT Action related to the implementation of the strategy to ensure the occupancy and vitality of territories.

C Action related to the implementation of Québec's Agenda 21 for culture.

Powerhouse mechanic Carl Lalande carries out maintenance work on a generating unit at Carillon generating station, in the Laurentides.

ACTION 1 BUILD HYDROPOWER PROJECTS

OVT

INDICATOR **Cumulative capacity made available by the Romaine project**

Target 2014	Target 2015	Target 2016
640 MW	775 MW	910 MW

At the Romaine complex (Côte-Nord), the dam and retaining structures of the Romaine-2 development were completed in November. This will allow us to take advantage of the 2014 spring flood to fill the reservoir. The assembly of the generating units is continuing as planned, with commissioning slated for 2014. At the Romaine-1 development, which will go into service in 2016, excavation work finished and concreting began, mainly at the generating station. Additional information is available in the section on the Romaine complex project (pages 28 to 30).

ACTION 2 INCREASE OUTPUT AND CAPACITY GAINS AT EXISTING HYDROELECTRIC GENERATING STATIONS

OVT

INDICATOR **Average annual cumulative output gains**

Target 2014	Target 2015	Target 2016
83 GWh/year	142 GWh/year	170 GWh/year

INDICATOR **Cumulative gains in available peak capacity**

Target 2014	Target 2015	Target 2016
36 MW	42 MW	48 MW

In the Baie-James region (Nord-du-Québec), unit overhaul at Robert-Bourassa generating station will continue over several years. This underground facility is the most powerful in Hydro-Québec's generating fleet. The overhaul began with the replacement of the speed governors, excitation and control systems, and some turbine runners. The first output gains are expected in 2014.

In Manicouagan (Côte-Nord), we completed the overhaul of the first unit at Jean-Lesage generating station and started work on the second one. This overhaul will ensure the units' long-term operability and increase their capacity by 30 MW.

In the Montérégie region, the overhaul of six units at Beauharnois generating station, which totals 36 units stretched over almost one kilometre, is proceeding on schedule. This work will extend the facility's service life and increase its output. The first output gains are expected in 2014 and will

total 45 GWh/year by the end of the Sustainable Development Action Plan currently in effect.

In Abitibi-Témiscamingue, the refitting of the first units at Rapide-2 and Rapide-7 generating stations was completed in 2013. Replacement of turbine runners and some mechanical elements will provide each facility with an additional 12 MW of capacity by 2018. The first output and capacity gains should be recorded in 2014.

ACTION 3 CONTINUE ENERGY EFFICIENCY INITIATIVES

INDICATOR **Energy savings since 2003**

Result 2013
8.5 TWh ✓

Target 2013	Target 2014	Target 2015
8 TWh	9 TWh	11 TWh

The programs of the Energy Efficiency Plan generated new savings of 619 GWh. When the CATVAR project is factored in, along with the Bureau de l'efficacité et de l'innovation énergétiques programs to which Hydro-Québec contributes, cumulative results since 2003 total 8.5 TWh. ✓ The results of the different programs and internal efforts are presented on pages 21 and 22.

Amélie Lampron and Emmanuel Bertrand, inside Rose Drummond greenhouse, Québec's number one florist, flower producer and market gardener, located in Drummondville (Montérégie). They took advantage of the Industrial Systems energy efficiency program to achieve significant energy savings.

ACTION 4 CONTINUE TO HELP LOW-INCOME CUSTOMERS

INDICATOR **Number of payment arrangements with low-income customers**[a]

Result 2013
66,913 ✓

Target 2013	Target 2014 to 2016
56,000	67,000/year

a) Including long-term arrangements.

In 2013, Hydro-Québec reached 66,913 special payment arrangements with low-income customers (57,567 in 2012) for a gross total of $294 million. ✓ The larger number of payment arrangements in 2013 reflects an increase in the number of requests for this type of arrangement. For more information, see page 45.

ACTION 5 CONTRIBUTE TO THE REDUCTION OF TRANSPORT-RELATED GHG EMISSIONS AND COLLABORATE IN THE ELECTRIFICATION OF TRANSPORTATION IN QUÉBEC

INDICATOR **Atmospheric emissions from the light-vehicle fleet**

Result 2013
23,209 t CO_2 eq. ✓

Target 2013 to 2016
27,700 t CO_2 eq. /year

INDICATOR **Number of new charging stations and number of regions covered by the Electric Circuit**[a]

Result 2013
105 charging stations in 12 regions ✓

a) No target planned for 2013 to 2016.

Overall emissions from Hydro-Québec's vehicle fleet have decreased by 14.3% compared with 2005 (13.9% in 2012): 24.2% for light vehicles and 4.2% for heavy vehicles. ✓ We are maintaining our efforts to reduce emissions from heavy vehicles. In 2013, in collaboration with Hydro-Québec's research institute (IREQ), we tested a new generation of longer-lasting batteries for using the lift in hybrid bucket trucks in electric mode. In addition, the company acquired three panel trucks equipped with a rechargeable backup generating set. This smart system supplies various tools and replaces the generator that is usually found in this type of vehicle.

At the Montarville-Boucher-De La Bruère library, in Boucherville, users can fill up at the Electric Circuit charging stations.

At December 31, the Electric Circuit included 241 charging stations (240 volts) in 14 administrative regions in Québec. Since April, the charging stations have been designed and manufactured in Québec by AddÉnergie Technologies. More information on transportation electrification is presented on pages 50 and 51.

Under the *Allégo* program, 586 trips were completed by means of the BIXI multi-user keys made available to employees in four of our buildings in downtown Montréal. In 2013, 181 employees took advantage of the free bicycle tune-ups offered to those who bike to work.

ACTION 6 CONTRIBUTE TO THE IMPLEMENTATION OF QUÉBEC'S POLICY FOR ECORESPONSIBLE GOVERNMENT

INDICATOR Number of product purchasing guides that include ecoresponsible specifications[a]

Result 2013
1

Target 2013	Target 2014	Target 2015	Target 2016
1	2	3	4

a) Cumulative results since the *Sustainable Development Action Plan 2013–2016* came into effect.

A purchasing guide covering printers, multi-purpose peripheral devices and cartridges was produced in 2013. According to this guide, all equipment and ink cartridge manufacturers must be ISO 14001–certified, and equipment must also be ENERGY STAR®–certified. Other suggestions include the use of a print release system to save on paper and the use of reconditioned cartridges.

Two 4R programs, for the recovery of electricity meters and of their seals, were optimized in 2013. More information on reduction at source, reuse and recycling measures is provided on pages 46 and 47.

Organizing ecoresponsible events is an increasingly widespread practice in the company, and includes the holding of virtual classes and videoconferences, which reduce GHG emissions by minimizing participant travel.

Réjean St-Jean, Advisor – Analysis and Standardization at the Direction principale – Télécommunications, uses videoconferencing to communicate remotely with colleagues. The goal: reduce travel and improve productivity.

ACTION 7 INFORM AND EDUCATE EMPLOYEES ABOUT SUSTAINABILITY AND THE COMPANY'S APPROACH

INDICATOR Percentage of new hires having received the information on sustainability

Result 2013
100%

Target 2013 to 2016
80%

Throughout the years, a number of activities have been implemented to inform and educate employees about sustainability. The Sustainable Development Action Plan focuses on the education of new hires: 626 new employees were hired by Hydro-Québec in 2013.

ACTION 8 PRESERVE AND ENHANCE BIODIVERSITY IN TRANSMISSION AND DISTRIBUTION LINE RIGHTS-OF-WAY

OVT

INDICATOR **Percentage of vegetation control operations per year that include** measures for enhancing biodiversity

Controlling vegetation in distribution line rights-of-way involves various challenges: optimizing operation of the grid and preventing outages, ensuring the safety of equipment and of people who come close to it, and preserving the environment and its biological diversity. In 2013, biodiversity enhancement measures were applied on 162,604 spans in the distribution system; vegetation control work was carried out on a total of 170,115 spans.

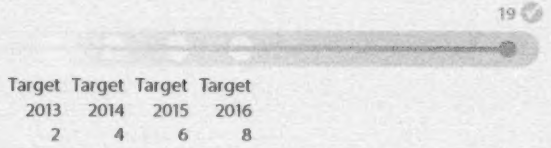
Communications with the public and municipalities affected by the vegetation control activities continued.

We also initiated a study of practices related to biodiversity and vegetation control in transmission line rights-of-way. Results are expected in late 2014 and will be used to recommend best practices.

ACTION 9 PUBLICIZE THE KNOWLEDGE ACQUIRED THROUGH HYDRO-QUÉBEC ENVIRONMENTAL STUDIES

C

INDICATOR **Number of documents published to the Web**[a]



a) Cumulative results since the Sustainable Development Action Plan 2013–2016 came into effect.

For many years, Hydro-Québec has been conducting environmental impact assessments in connection with its projects. The expertise acquired through these studies currently informs the design of new projects. The *Summary of environmental knowledge of line and substation projects – 1973–2013* (in French only), which encompasses 40 years of environmental expertise in the design and operation of transmission facilities at Hydro-Québec, consists of 19 summaries, each covering a different topic.

ACTION 10 CONTINUE TO PROTECT AND ENHANCE THE COMPANY'S BUILT AND TECHNOLOGICAL HERITAGE

OVT C

INDICATOR **Number of good-practice guides produced and disseminated**[a]

a) Cumulative results since the Sustainable Development Action Plan 2013–2016 came into effect.

INDICATOR **Number of annual visits to facilities and jointly operated sites**[b]

b) No target planned for 2013 to 2016.

Hydro-Québec takes care of a rich heritage made up of sites, buildings and equipment. These assets are not only witnesses to technological development but also reflect the history of the society that created, modified and used them. The company works with various parties to manage its heritage. Our first guide on this built heritage will be produced in 2014.

Hydro-Québec's facilities and jointly operated sites promote local tourism and educate the public about built and technological heritage. Our facilities and sites in 11 administrative regions in Québec welcomed 59,587 visitors in 2013, in addition to the 71,028 visitors to jointly operated sites.

CLIMATE CHANGE

Carillon generating station, on the Rivière des Outaouais in the Laurentides. This run-of-river facility, which turned 50 this year, is an integral part of a clean, renewable generating option.

The 450-kV direct-current Radisson–Nicolet–Des Cantons line is used to export electricity generated in the Baie-James region to the U.S.

According to the International Energy Agency, global greenhouse gas (GHG) emissions are increasing rapidly. In 2013, for the first time in hundreds of thousands of years, the atmospheric concentration of CO_2 surpassed 400 ppm. The effects of climate change are already being felt, and experts expect more intense and frequent extreme weather phenomena and a rise in temperatures and sea levels.

In large part due to its size, climate and resource-based economy, Canada is among the five major industrialized countries with the highest GHG emission rates per capita. According to the most recent data, the electricity sector accounts for 13% of these emissions. In Québec, the electricity sector represents barely 0.7% of the province's emissions, thanks to the abundance of water resources.

QUÉBEC REGULATORY FRAMEWORK

In January 2013, the Québec cap and trade system for greenhouse gas emissions allowances (C&T system) came into effect. Organizations that are subject to the system and emit 25,000 metric tons of CO_2 equivalent per year or more must offset their emissions, mainly by purchasing an equivalent number of emission units at the Québec government auction. Since January 1, 2014, Québec's carbon market has been officially linked to California's. Participants can buy emission units in California and use them to cover their GHG emissions in Québec. Québec's market accounts for 17% of emissions on the joint Québec/California market.

EXCLUSIVE WEB CONTENT

- Greenhouse gas emissions and reservoirs
- A clean and renewable energy source
- Life cycle assessment
- Hydro-Québec's energy supplies and air emissions
- Effects of climate change on Hydro-Québec's activities

Hydro-Québec facilities and activities that are subject to the C&T system are related to the following:

- operation of the oil-fired thermal plant at Cap-aux-Meules (Gaspésie–Îles-de-la-Madeleine),
- electricity imports (from thermal sources), and
- losses of insulating gases (SF_6 and CF_4), mainly linked to operation of the transmission grid.

An additional fee linked to carbon footprint will thus be added to the cost of imported electricity. Furthermore, the C&T system does not provide any credits for exports of Québec electricity, even though these contribute to reducing GHG emissions in the importing states and provinces.

THE FOOTPRINT OF ELECTRICITY

Hydro-Québec asked the Interuniversity Research Centre for the Life Cycle of Products, Processes and Services (CIRAIG) to conduct a life cycle assessment (LCA) establishing the environmental profile of one kilowatthour of electricity supplied by the company in Québec in 2012. The study was also meant to provide the information required to set up a Québec life cycle inventory database.

In the climate change component, the rate of GHG emissions for the electricity supplied was 20.72 g of CO_2 eq./kWh. These were mainly generation-related emissions (reservoir generating stations and electricity purchases). Emissions from transmission and distribution were mainly linked to energy losses on the system.

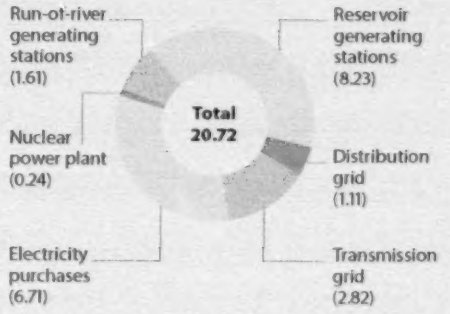
Reservoir impoundment leads to the decomposition of part of the flooded biomass. This temporarily increases GHG emissions, which reach their maximum after two to four years. Subsequently, in less than 10 years, reservoir CO_2 emissions are comparable to those from neighboring water bodies.

Since thermal sources emit more GHGs, electricity purchases, which accounted for 18% of the electricity supplied, were responsible for 32% of GHG emissions per kilowatthour supplied.

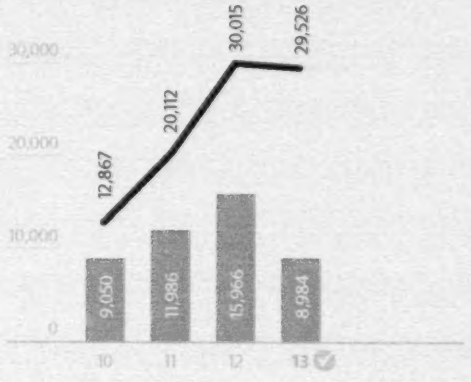
2013 HIGHLIGHTS

- Hydro-Québec's net electricity exports to neighboring systems in Canada and the U.S. helped avoid 9 million tonnes of CO_2 emissions, or the annual emissions equivalent of all the heavy trucks on Québec roads.
- Emissions from power generation and purchases in Québec were significantly lower than the average for neighboring provinces and states in Canada and the U.S.: 1,130 t CO_2/TWh (239 times less than the average), 4.4 t SO_2/TWh (82 times less) and 10 t NO_x/TWh (49 times less).
- Conclusion of the LCA of small-scale (under 50 kW) distributed electric power generation (CIRAIG): From an environmental standpoint, kilowatthours supplied by Hydro-Québec's system outperformed those generated by each of the five systems studied (three wind turbine systems and two photovoltaic solar panel systems).
- Conclusion of the LCA of small-scale (under 50 kW) distributed thermal power generation (CIRAIG): From an environmental standpoint, heating systems supplied by Hydro-Québec's system are more efficient than flat plate or evacuated tube collector solar thermal systems, but less efficient than glazed solar air collector systems and geothermal systems. Since geothermal systems can meet about 80% of a household's needs, they considerably reduce the environmental footprint associated with heating. All of these systems present significant environmental benefits over fossil fuel–based systems.

GHG EMISSIONS PER KWH – ELECTRICITY SUPPLIED (g of CO_2 eq./kWh)



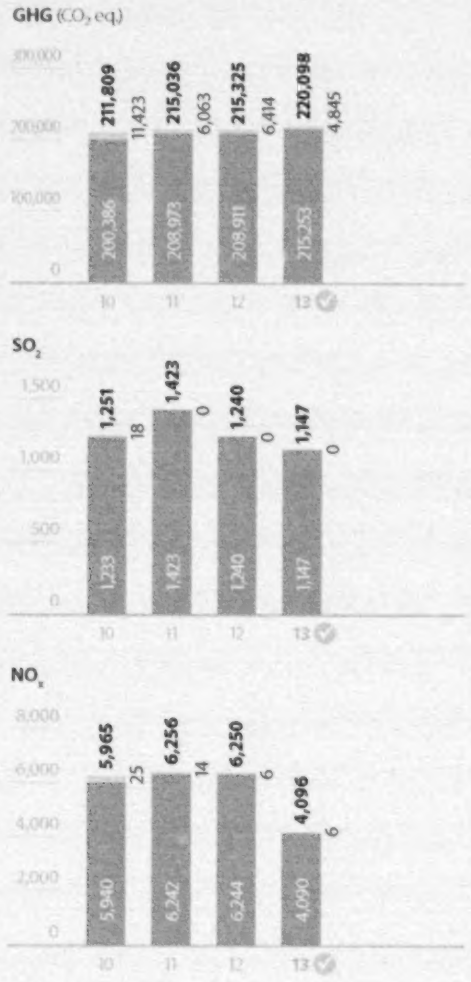
EMISSIONS AVOIDED BY NET EXPORTS OF ELECTRICITY



GHG EMISSIONS FROM HYDRO-QUÉBEC OPERATIONS – 2013

CATEGORY	OPERATIONS	EMISSIONS (t CO_2 eq.)
Direct sources (level 1)		
Generating stations	Thermal power plants	220,098
Mobile sources	Vehicle fleet	51,891
	Hydro-Québec aircraft fleet	13,299
	Utility vehicles (e.g., snowmobiles, tractors, snowblowers)	693
	Propane-fueled lift trucks	89
Fuel use	System maintenance generators	8,629
	Emergency and jobsite generators	4,315
	Building heating	735
Other uses	Equipment containing CF_4 and SF_6	70,005
	Aerosols	392
		370,146
Indirect sources (level 2)		
Energy losses	Power transmission and distribution system losses	18,064
		18,064
Total direct and indirect emissions (levels 1 and 2)		**388,210**
Emissions avoided by net exports of electricity		**8,983 813**

ATMOSPHERIC EMISSIONS FROM HYDRO-QUÉBEC THERMAL GENERATION OPERATIONS (t)



DEMAND-SIDE MANAGEMENT

In Montréal, the densely populated Mercier neighborhood is growing rapidly, leading to increased energy needs. Hydro-Québec encourages all Quebecers to consume energy wisely.

According to the Montreal Economic Institute, Quebecers are the world's second-largest consumers of electricity after Icelanders. They consume 48% more electricity than the average Canadian and 90% more than Americans. Electricity is the form of energy that is consumed the most in Québec (40%), followed closely by oil (39%) and then natural gas (13%). Canada, on the other hand, consumes mainly oil products (41%) and natural gas (31%) over electricity (24%).

Québec's high electricity consumption is attributable to the large demand in the industrial (aluminum, pulp and paper, etc.) and residential (home heating) sectors.

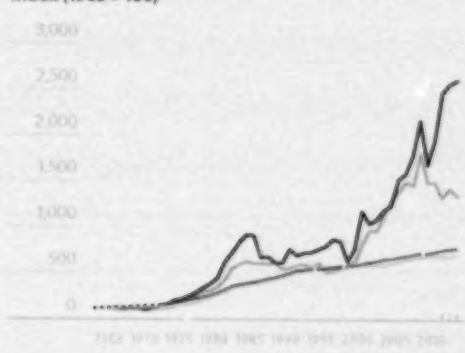
ENERGY EFFICIENCY PLAN (EEP)

Since 2003, Hydro-Québec has invested close to $1.8 billion to help its customers save energy. In 2013 alone, the EEP budget totaled $174 million, including contributions to Bureau de l'efficacité et de l'innovation énergétiques projects.

Hydro-Québec uses various means to promote energy efficiency among its customers. In 2013, in addition to the financial assistance offered through its energy efficiency programs, the company focused on education and support strategies. This approach should lead to lasting behavioral changes, with a view to promoting changes in the market and creating long-term energy savings.

In 2013, customer participation in programs under the EEP generated savings of 619 GWh. When the CATVAR project is factored in, along with projects financially

INFLATION AND TRENDS IN ENERGY PRICES IN QUÉBEC 1963–2013



– Oil
– Gas
– Electricity
··· Consumer Price Index (CPI)

Sources: Hydro-Québec, Ministère des Ressources naturelles du Québec and Statistics Canada

EXCLUSIVE WEB CONTENT

- Comparison of electricity prices
- Energy efficiency – Residential customers
- Energy efficiency – Business customers

supported by Hydro-Québec and offered by the Bureau de l'efficacité et de l'innovation énergétiques, energy savings since 2003 totaled 8.5 TWh.

2013 HIGHLIGHTS

- Hydro-Québec received two ENERGY STAR® awards: Utility of the Year – Provincial and Promotional Campaign of the Year. These are the 12th and 13th awards earned by Hydro-Québec as part of Natural Resources Canada's program for energy efficiency promotion.

Residential customers

- The Efficient Pools Program was introduced in order to reduce electricity consumption through the promotion of energy-efficient behaviors, mainly involving the use of three products: a timer, a solar pool cover and a two-speed pump. Energy savings totaled 23 GWh.
- We launched the Water- and Energy-Saving Products Program designed to help customers reduce their water and energy consumption through a kit containing a showerhead and low-flow faucet aerators. Within a few months, 3,315 kits had been ordered.
- The rental property thermostat replacement program ended on December 31. Over one million electronic thermostats were installed since it began. The old thermostats were recovered and 90% of their components were recycled.
- Great success was achieved with the Lighting Program, which promotes the purchase and installation of light emitting diode (LED) bulbs. The program generated savings of 63 GWh, easily surpassing the 14 GWh goal.
- Close to 175,000 reports were generated under the Dare to Compare service, which allows customers to compare their electricity consumption against that of households with a similar profile.

RESULTS OF ENERGY EFFICIENCY INITIATIVES – EEP (GWh)

	OBJECTIVES				RESULTS[a]			
	2010	2011	2012	**2013**	2010	2011	2012	**2013**
Residential market	315	279	262	159	372	358	270	220
Business market	403	369	431	394	625	656	770	398
Energy savings[b]	**718**	**648**	**693**	**553**	**997**	**1,014**	**1,039**	**619**

a) May have been adjusted following program evaluation.

b) Overall total and sum of subtotals may differ due to rounding.

RESULTS OF ENERGY EFFICIENCY PROGRAMS (number)

	2010	2011	2012	**2013**
Residential customers (ENERGY WISE products)				
Electronic thermostats	580,685	814,646	676,974	197,730
Lighting – bulbs[a]	1,706,783	1,376,046	426,918	2,090,478
Residential customers (other)				
ENERGY WISE Home Diagnostic questionnaires	105,800	80,894	35,948	20,515
Dare to Compare questionnaires	N/A	59,978	355,687	174,869
Recovered energy-guzzling refrigerators and freezers[b]	104,523	59,243	35,921	30,964
Geothermal energy (participants)[c]	429	301	521	237
Commercial and institutional customers (projects submitted)				
Buildings Program	550	2,014	2,853	4,051
Industrial customers (projects submitted)				
Industrial Systems Program	746	487	569	548

a) Until June 2012, Hydro-Québec ran a promotion for compact fluorescent lightbulbs. In the fall of that year, the promotion switched to LED bulbs. The data takes this into account.

b) Does not include appliances recovered through the Refrigerator Replacement for Low-Income Households program.

c) The geothermal energy support program ended in March 2013.

- A total of 15,709 three-element water heaters were installed. These water heaters help reduce power demand during peak periods.
- The Refrigerator Replacement for Low-Income Households Program continued, generating savings of 2.5 GWh. A total of 11,153 refrigerators have been replaced since this initiative was launched in 2011.

Commercial, institutional, industrial and agricultural customers

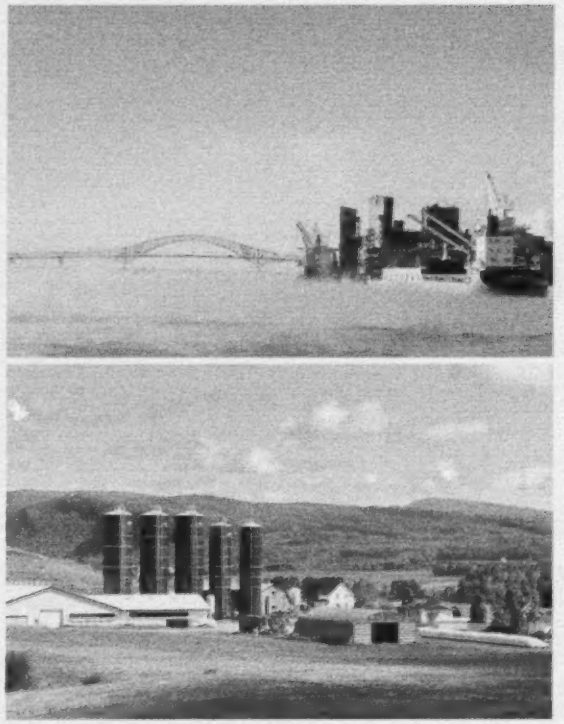
- For business customers, we continued to offer our integrated energy efficiency service under the Buildings Program and the Industrial Systems Program. Participation was high in both. Factoring in the previous programs, energy savings achieved are 358 GWh, for a total of 1.7 TWh since they were launched in 2011.
- For agricultural customers, the continuation of the Efficient Farming Products Program generated savings of 36 GWh.

ENERGY EFFICIENCY OF HYDRO-QUÉBEC FACILITIES

Hydro-Québec applies various initiatives to limit system losses and improve the energy performance of its equipment and facilities.

2013 HIGHLIGHTS

- The CATVAR project yielded total savings of 254 GWh. By 2023, we will have installed 1,000 remotely monitored voltage transformers in about 130 satellite substations, providing annual savings of 2 TWh. Investments will total $152.4 million between 2010 and 2023.
- Implementation of energy efficiency measures in administrative buildings continued: between 2010 and 2013, average energy consumption dropped by 35 kWh/m², or 12%.



^ ^ On January 22, 2014, electricity demand in Québec reached a historic peak of 39,240 MW.

^ A farm in the valley of the Rivière Neigette, in Bas-du-Fleuve. Hydro-Québec offers farmers energy efficiency programs to help them increase the profitability of their businesses.

RESULTS OF CATVAR PROJECT (GWh)

	OBJECTIVES				RESULTS			
	2010	2011	2012	**2013**	2010	2011	2012	**2013**
CATVAR project	138	182	152	231	178	208	268	254

ENERGY EFFICIENCY RESULTS – ADMINISTRATIVE BUILDINGS (kWh/m²)

	OBJECTIVES[a]		RESULTS			
	2013	2020	2010	2011	2012	**2013**
Average energy consumption	246	216	280	263	255	245

a) The energy consumption objectives are based on market indicators (BOMA BEST). From 2010 to 2013, we monitored 85 buildings.

ENERGY PORTFOLIO

Jean-Lesage (formerly Manic-2) generating station, in the Manicouagan region. Built in the 1960s, it is currently being refurbished to ensure its long-term operability and increase its capacity.

According to the predictions of the International Energy Agency, meeting global electricity needs will require a 70% increase in generating capacity by 2035, mainly in China, India and Southeast Asia. In Canada, the sixth-largest electricity producer in the world, domestic demand decreased slightly following the 2008 financial crisis. The country remains one of the main electricity exporters.

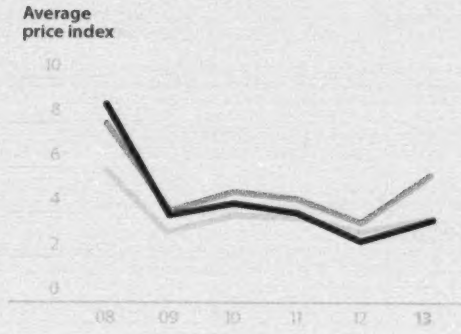
To provide Quebecers with a reliable supply of electricity, Hydro-Québec has a generating fleet primarily made up of renewables and can count on 59 long-term supply contracts. Most of these contracts are based on government decrees regarding the purchase of blocks of renewable energy and must be approved by the Régie de l'énergie [Québec's energy board].

Under the *Act respecting the Régie de l'énergie*, Hydro-Québec produces a three-year Electricity Supply Plan and follows up on it every year. The supply plan describes how the company plans to meet the energy and capacity needs of Québec customers.

ELECTRICITY DEMAND

The impacts of the 2008 global financial crisis continue to be felt on Hydro-Québec's activities. The company's forecast for electricity demand in Québec has consequently been revised downward to reflect factors such as the decrease in industrial activity, especially in the aluminum and pulp and paper sectors.

TRENDS IN ENERGY PRICES ON HYDRO-QUÉBEC'S EXTERNAL MARKETS



- Natural gas: Henry Hub (US$/MMBtu)
- Electricity: New England – ISO-NE, Mass Hub, Day-Ahead Market (US¢/kWh)
- Electricity: New York – NYISO, Zone A, Day-Ahead Market (US¢/kWh)

EXCLUSIVE WEB CONTENT

- Characteristics of Hydro-Québec's electricity
- Hydro-Québec's generating facilities
- Electricity purchases – Québec market
- Hydro-Québec's research institute, IREQ

Sales in Québec

In 2013, the drop in temperatures compared with the previous year, along with growth in demand, led to a considerable increase in revenue from electricity sales in Québec.

2013 HIGHLIGHTS

- Electricity sales in Québec: 173.3 TWh (168.4 TWh in 2012).
- Revenue from electricity sales in Québec: $11,085 million ($10,442 million in 2012).

Sales outside Québec

Electricity sales outside Québec remain an important source of the company's profitability. Québec hydropower is an attractive energy option for the New England states, as it can contribute to achieving their GHG reduction objectives. Hydro-Québec is continuing talks regarding possible participation in transmission line projects between Québec and New England, among other markets. These connections would allow for increased exports to those markets.

2013 HIGHLIGHTS

- Electricity sales outside Québec: 32.2 TWh.
- Revenue from electricity sales outside Québec: $1,525 million.
- Revenue from net electricity exports: $1,353 million.

ELECTRICITY SUPPLY

Hydro-Québec generates almost all of its electricity from water. Of the 4,500 or so rivers in Québec, the company has harnessed 75, on which it operates 26 large reservoirs, 656 dams and 97 control structures to produce electricity. Our generating fleet also includes 26 thermal power plants, 24 of which are small diesel facilities supplying customers connected to off-grid systems in northern areas.

Since 2003, Hydro-Québec has conducted purchasing programs and tender calls for the acquisition of the blocks of renewable energy required by the Québec government (wind power, biomass and small hydro).

Hydroelectricity

Hydroelectricity is a constant source of energy that guarantees a reliable supply. Thanks to its storage capacity, a reservoir generating station can react instantly and adjust to changes in demand. At peak periods, hydropower generation can be revised almost in real time. In comparison, it can take up to 12 hours or so to start up a conventional thermal power plant.

In addition to studying or carrying out hydropower generation projects, the company improves the performance and generating capacity of its existing power plants.

GOVERNMENT DECREES REGARDING RENEWABLE ENERGY PURCHASES

a) In addition to this 450-MW block, a 150-MW block is planned for a Mi'gmawei Mawiomi group project and a 200-MW block will be provided by Hydro-Québec Production.

2013 HIGHLIGHTS

- In the Baie-James region (Nord-du-Québec), the overhaul of 1 of the 16 units at Robert-Bourassa generating station is almost finished. The overhaul of 8 of the 16 units, which will extend over several years, will ensure the long-term operability of the equipment and improve its efficiency.
- In Manicouagan (Côte-Nord), we completed the overhaul of the first unit at Jean-Lesage generating station and started work on the second one. In 2016, when this overhaul is finished, the capacity of the generating units should increase by 30 MW.

Wind power

Hydro-Québec purchases wind power from independent producers and reliably integrates it into its grid. In December 2013, the company purchased the output of 23 wind farms with a capacity of 2,399 MW.

2013 HIGHLIGHTS

- Eight wind farms were commissioned for a total capacity of 1,050 MW.
- We issued a fourth call for tenders (450 MW) in accordance with government decrees: 300 MW from projects that can be carried out in the Bas-St-Laurent and Gaspésie–Îles-de-la-Madeleine regions, and 150 MW from projects across Québec.

Biomass

Biomass is residual matter that can be burned to produce heat or generate electricity. It is a cost-effective option in regions where industrial activities produce a large quantity of organic waste. Biomass potential in Québec is based on three major categories of source matter: forest biomass, agrifood biomass and urban biomass.

WIND FARMS AND GENERATING STATIONS (COGENERATION AND SMALL HYDRO) COVERED BY SUPPLY CONTRACTS

Wind farms

Cogeneration plants

Small hydropower stations

HYDRO-QUÉBEC GENERATING FACILITIES – 2013

Facilities[a]	Number	MW	Net output (GWh)[b]
Hydroelectric generating stations	61	35,364	177,858
Thermal power plants	26	704	292
Total	**87**	**36,068**	**178,150**

a) One hydroelectric generating station and 24 thermal power plants serve off-grid systems.

b) These figures include renewable energy certificates for the output of Hydro-Québec Production's generating stations (142 GWh) that were sold to third parties.

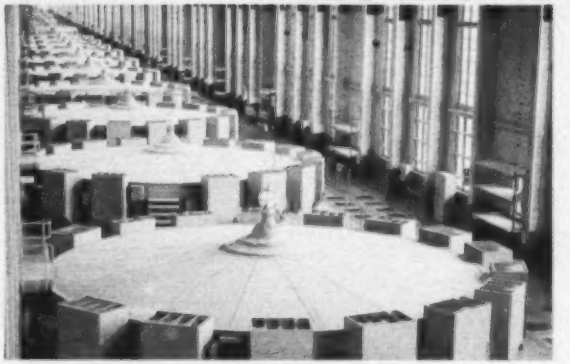
Note: In addition to the generating capacity of its own facilities, Hydro-Québec also has access to almost all the output from Churchill Falls generating station (5,428 MW) under a contract with Churchill Falls (Labrador) Corporation Limited that will remain in effect until 2041. It also purchases all the output from 23 wind farms (2,399 MW) and 4 small hydropower plants (48 MW), and almost all the output from 11 biomass cogeneration facilities (205 MW) operated by independent power producers. Moreover, 1,146 MW are available under long-term contracts with other suppliers.

2013 HIGHLIGHTS

- Four biomass cogeneration plants were commissioned for a capacity of 68.4 MW.
- We signed four electricity supply contracts (50.7 MW) under the program to purchase 300 MW of electricity produced by forest biomass cogeneration in Québec (in French only), launched in December 2011. The contract power of the generating stations in operation totals 104.7 MW.
- The provincial government issued a decree to extend the program to purchase 300 MW of electricity produced by forest biomass cogeneration in Québec. The extension must be approved by the Régie de l'énergie.

Other renewables

IREQ is conducting research on new renewable sources of electricity generation, with a focus on solar and hydrokinetic power.



^^ In Akulivik (Nunavik), a new, 2,025-kW thermal power plant is being built. Its three generating units will be more efficient than the equipment of the existing 30-year-old plant.

^ In the Montérégie region, Beauharnois generating station, with its 36 units stretched over nearly a kilometre, is one of the world's most powerful run-of-river plants. It can send electricity to Ontario or the U.S., as required.

NET ELECTRICITY GENERATED AND PURCHASED BY HYDRO-QUÉBEC (GWh)

	2010	2011	2012	**2013**[1]
Hydropower generated	157,219	165,478	167,254	177,858
Hydropower purchased[b]	32,360	32,381	37,523	33,888
Biomass and waste reclamation power purchased	1,323	1,217	1,233	1,614
Wind power purchased[b]	1,419	1,531	2,562	4,721
Total renewables[c]	**192,321**	**200,608**	**208,572**	**218,081**
Total energy generated	160,733	169,017	171,442	178,150
Total energy purchased	43,109	38,520	41,843	41,217
Total energy generated and purchased	**203,842**	**207,537**	**213,284**	**219,367**
Total renewables/Total energy generated and purchased (%)	**94**	**97**	**98**	**99**

a) Overall total and sum of subtotals may differ due to rounding.

b) Includes purchases from Churchill Falls (Labrador) Corporation and independent power producers, including McCormick generating station, in which Hydro-Québec holds a 60% interest.

c) These figures include renewable energy certificates for the output of Hydro-Québec Production's generating stations (142 GWh in 2013 and 24 GWh in 2012) that were sold to third parties. They do not include wind energy, hydropower and biogas purchases for which renewable energy certificates were sold to third parties.

Thermal and nuclear power

Hydro-Québec's thermal facilities—most of which supply off-grid systems—account for less than 0.2% of the company's total energy output. They offer the most reliable means for serving communities that are not connected to the main grid, but are Hydro-Québec's primary source of GHG emissions.

Gentilly-2 nuclear generating station ceased operations in December 2012, and the initial decommissioning activities to prepare it for dormancy were completed on schedule. The decommissioning process under way is being continually monitored by the Canadian Nuclear Safety Commission. Regular meetings are held with elected representatives from the Mauricie and Centre-du-Québec regions to report on actions taken at the generating station and answer their questions.

2013 HIGHLIGHTS

- The Régie de l'énergie approved the suspension of 2014 deliveries from the thermal generating station in Bécancour (TransCanada Energy). (Centre-du-Québec)
- Construction began on the $49.4-million Akulivik diesel power plant (Nord-du-Québec). The new facility will be equipped with three generating units for a total capacity of 2,025 kW. More efficient than the existing 30-year-old power plant, the new plant will consume less fuel and produce fewer GHG emissions. From 2016 to 2036, savings will total 1.9 million litres in fuel, and 5,100 tonnes in avoided GHG emissions (the emissions equivalent of 1,700 cars).

BALANCING SUPPLY AND DEMAND

In November, Hydro-Québec filed the 2014–2023 Electricity Supply Plan with the Régie de l'énergie. This document outlines the company's supply strategies based on the latest demand forecast for Québec over the next 10 years. Compared with the previous plan, there has been a decrease in the energy needs forecasted for the 2014–2023 period, mainly because of the decline in industrial activity observed in areas such as the aluminum sector. At the same time, our portfolio has expanded through the addition of the energy blocks decreed by the Québec Government. This situation has led to energy surpluses of about 75 TWh for 2014–2023.

On October 7, 2013, the Québec government launched the Economic Policy – *Putting Jobs First*, which identifies, as one of its key measures, the leveraging of energy surpluses to stimulate job creation and attract investment in Québec. For the next 10 years, up to 50 TWh could be made available to this end.

DISMANTLING GENTILLY-2 NUCLEAR GENERATING STATION

The work required for the dismantling of Gentilly-2 nuclear generating station will be divided into four major phases extending over more than 50 years.

2013–2014 Defueling the reactor; draining the heavy water and light water.

2014–2059 Transferring and storing the irradiated fuel in storage modules after it has spent seven years in the cooling pool; maintaining the systems still being used; constantly monitoring the site.

2059–2064 Dismantling the generating station.

2065–2066 Restoring the site.

Romaine project

STATUS
Under construction

COST
$6.5 billion

REGION
Côte-Nord

CONSTRUCTION
2009–2020

INSTALLED CAPACITY
1,550 MW

PLANNED ANNUAL OUTPUT
8.0 TWh

ECONOMIC SPINOFFS
$3.5 billion for Québec as a whole, including $1.3 billion for the region

UNIT COST
6.4¢/kWh
(including transmission costs)

EXCLUSIVE WEB CONTENT

- Project Web site **(in French only)**
- Le SYNCHRO newsletter **(in French only)**
- Information bulletins **(in French only)**

Romaine-1 jobsite. Concreting of the upstream portal for the temporary bypass began.

The Romaine project, which involves the development of four hydroelectric generating stations, has been subject to environmental monitoring since the start of construction in 2009. In addition to the mitigation measures implemented throughout the project, studies will be carried out until 2040 to examine wildlife, vegetation, the physical characteristics of the river and the economic and social impacts of the project on local communities and their land use. The environmental follow-up allows us to assess the effectiveness of the measures implemented, monitor changes in the environment, verify the effects of the project and increase our knowledge.

From 2009 to 2012, investments in the Côte-Nord economy totaled $421.5 million—33% of the $1,300 million planned for the entire construction period (until 2020). Regional workforce accounts for 46% of hires, compared with the 60% forecasted, mainly because of the steady rebound in the Côte-Nord economy in 2012 which led to strong demand for the region's workforce and businesses. In terms of project content, 75% is from Québec, compared with the 70% forecasted. For the third year in a row, ReNew Canada magazine ranked the Romaine complex as the second-biggest infrastructure project under way in Canada in 2014.

Romaine project (continued)

PROGRESS IN 2013

ROMAINE-1 GENERATING STATION
(commissioning: 2016)

Generating station
- Excavation and concreting of the downstream wall for the service area and draft tubes were completed up to an elevation of 11.5 m. Installation of the superstructure began.

Water intake and penstocks
- Excavation is finished, concreting of penstocks began and the permanent bridge above the headrace canal was commissioned.

Spillway and main dam
- Excavation for the headrace and tailrace canals was completed and concreting of the spillway chute began. Excavation, cleaning, grouting and concreting of the main dam's base for the right section of the spillway is finished and work on the left section began.

Temporary diversion
- Surface and underground excavation was completed, as was concreting.

Clearing of the reservoir
- Clearing began and is being conducted by an Aboriginal company.

ROMAINE-2 GENERATING STATION
(commissioning: 2014)
- Construction of the dam and dikes was completed.
- Excavation and concreting of the instream flow release structure were finished.
- Installation of spillway gates, water intake and draft tubes was completed.
- Installation of electromechanical systems and architectural work at the generating station continued.
- Installation of the generating units began.

ROMAINE-3 GENERATING STATION
(commissioning: 2017)
- Excavation of the diversion tunnel was finished and concreting of the intake portal began.
- Excavation at the site of the future switchyard and paving of the road (kilometres 47 to 117) were completed.
- Construction got under way on the main access road (kilometres 117 to 144).
- Development of Mista workcamp continued.

ROMAINE-4 GENERATING STATION
(commissioning: 2020)
- Archaeological surveys were carried out.

Romaine-1 jobsite. Mechanic Steeve Michaud and drillers Richard Morneau and Jean-Sébastien Couture, from the Hexagone Group, carry out major construction work.

2013 HIGHLIGHTS
- Jobs created: 1,520 person-years (Côte-Nord workers accounted for 37% of the workforce and Innu workers, for 9%).
- Annual investment (not including financing): $718 million.
- Contracts awarded in the region: $126 million.
- Over 40 activities were carried out to determine the baseline conditions before the impoundment of Romaine 2 reservoir, scheduled for spring 2014.
- 119 sector-specific government approvals were received, as well as six legal non-compliance notices for which corrective measures have been or are now being implemented.
- Composting activities continued at Murailles and Mista workcamps: close to 95,000 kg of organic waste was diverted from landfill. The compost will be used in site restoration once construction is finished.
- The administrative building at Mista workcamp was certified ICI on recycle! (in French only) by Recyc-Québec in recognition of the measures implemented for waste reduction, reuse, recycling and reclamation.
- Additional sites were developed for the recovery of construction lumber, which will be chipped and used in site restoration once construction is finished.

Romaine project (continued)

EXAMPLES OF ENVIRONMENTAL MANAGEMENT ACTIVITIES IN 2013

MITIGATION MEASURES

Arctic char

- Specimens were moved into two lakes with characteristics suitable for Arctic char reproduction, replacing two lakes that will be flooded when Romaine 4 reservoir is created.

Cultural value of beaver

- Beaver trapping was carried out on the site of the future Romaine 2 reservoir and along the access road, in collaboration with the Innus. This approach allowed us to draw on Innu knowledge and distribute the game in the community of Ekuanitshit.

ENVIRONMENTAL FOLLOW-UP

Atlantic salmon

Initiatives to fight the decline in the salmon population were begun by the Société Saumon de la rivière Romaine, to which Hydro-Québec contributes:

- Assessment of the smolt population during downstream migration in the Rivière Puyjalon.

Forest-dwelling caribou

- Telemetric monitoring of caribou continued. Calf survival rate was determined from counts carried out during helicopter flyovers. The results indicate that the population was fragile even prior to the start of the project.

Mouth of the Rivière Romaine

- Several studies were carried out to update the baseline for physical and biological oceanography at the mouth of the Romaine. The follow-up confirmed that the area is a feeding site for rainbow smelt rather than a significant spawning ground.

Social impacts – Mingan communities

- Monitoring of the social impacts of the project in Minganie continued through a survey of the population. Over 760 Mingan residents responded to the survey, identifying job creation as the main positive impact and increased cost of living as the main negative one.

Social impacts – Innu communities

- Monitoring of the social impacts of the project on Innu communities continued through a survey of four Innu communities. Over 650 Innus participated in the survey, identifying job creation as the main positive impact and family difficulties caused by the separation of workers from their families as the main negative impact.

Environmental follow-up. The downstream migration of smolts at kilometre point 5 on the Romaine is closely monitored.

Land use

- A survey of Mingan land users revealed that, since the beginning of the project, the noise from construction had caused disturbances in the activities of some of the hunters and trappers.

Workers' hunting and fishing activities

- Hunting and fishing by jobsite workers during their spare time continued to be monitored. As in previous years, most catches were made close to the workcamps, in the lakes stocked by Hydro-Québec.

Road traffic

- Traffic flow on Highway 138 was counted and analyzed. Since the start of the project, construction has led to an increase in traffic of less than 20%.

PARTNERSHIPS WITH COMMUNITIES

Information on the project and results of environmental follow-ups

- The studies were presented and comments from members of the technical and environmental committees from the Innu communities were integrated.
- Meetings were held by the limited and expanded economic spinoffs committees.
- An information tour met with business people in Côte-Nord.

Eastmain-1-A/ Sarcelle/Rupert project

STATUS
In operation

COST
$4.7 billion

REGION
Nord-du-Québec

CONSTRUCTION
2007–2013

INSTALLED CAPACITY
918 MW

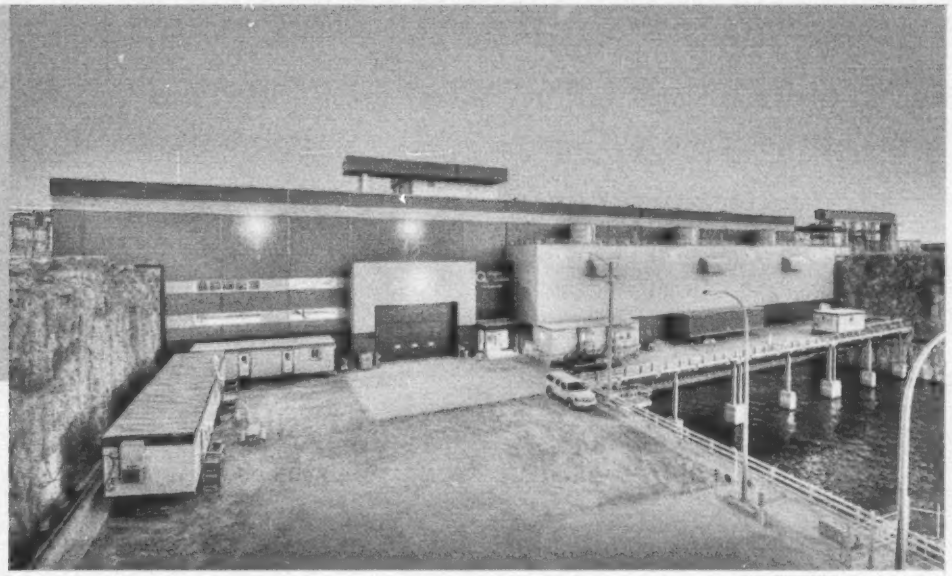
PLANNED ANNUAL OUTPUT
8.7 TWh

ECONOMIC SPINOFFS
$2.9 billion for Québec as a whole, including $640 million for the Nord-du-Québec region

UNIT COST
4.3¢/kWh (including transmission costs)

EXCLUSIVE WEB CONTENT

- Hydlo and Friends online
- Weh-Sees Indohoun Corporation



Sarcelle powerhouse has been fully operational since the commissioning of the third bulb-type unit.

The energy contribution of the Eastmain-1-A/ Sarcelle/Rupert project, which was completed in 2013, totals 8.7 TWh per year. In addition to the output of the new Eastmain-1-A and Sarcelle powerhouses (3.4 TWh), this total includes the significant output gains (5.3 TWh) achieved from the diversion of part of the Rupert's flow toward Robert-Bourassa, La Grande-2-A and La Grande-1, located further north. The cost of construction totaled $4.7 billion, less than the $5 billion originally budgeted. Throughout the construction of these facilities, about 500 environmental protection measures were implemented. The environmental follow-up will continue for several years, as is the case for many other facilities in operation.

2013 HIGHLIGHTS

- Jobs created: 240 person-years (9.4% Cree workers).
- Annual investment (not including financing): $56 million.
- Contracts awarded in the region: $10 million.
- No legal non-compliance notices.

Eastmain-1-A/Sarcelle/Rupert project (continued)

EXAMPLES OF ENVIRONMENTAL MANAGEMENT ACTIVITIES IN 2013

MITIGATION MEASURES

Fish habitat maintenance

- New spawning grounds (200 m²) for brook trout were developed to make up for the ones lost in 2010.

Access to the territory

- Six hunting and fishing camps were built for the Crees, along with two roads totaling 1.5 km and two ATV trails. Seven approach corridors were cleared close to goose hunting areas and navigation corridors were optimized.

Site restoration and enhancement

- Lecterns were installed to support 29 information panels: 28 along the Rupert and one at the site of Sarcelle powerhouse.
- Site restoration work continued (581,265 seedlings planted and over 52 ha seeded).

ENVIRONMENTAL FOLLOW-UP

Wood debris

- No notable accumulation of wood debris has been observed along the Rupert diversion bays since their impoundment in November 2009. The next follow-up year has been postponed to 2015.

Passage of fish

- Since the closure of the temporary bypass for Sarcelle powerhouse, there are no impassable obstacles in creek OA-02.

Survey of Cree workers

- Cree workers appreciated the measures taken to facilitate their contact with their families. Some of these measures were: gathering places, the opportunity to eat traditional foods, family visits and Cree radio broadcasts at the workcamps.

A MODEL OF SUSTAINABILITY

The Eastmain-1-A/Sarcelle/Rupert project was the subject of numerous consultations with stakeholders and led to hundreds of measures to preserve the environment. The Rivière Rupert is mainly used by the Crees, both winter and summer.

Hydro-Québec rehabilitated sites, enhanced the area affected by the project, preserved fishing activities and improved access to the area. The company also seeded 300 hectares to support goose hunting, and built two pools and boardwalks at Smokey Hill Rapids for traditional Cree cisco fishing. As a result of all the measures implemented, a living ecosystem has been maintained in the section of the river beyond the diversion point.

Expansion of the transmission system in Minganie: Connecting facilities to the transmission grid

STATUS
Under construction

FACILITIES
- 315-kV Romaine-1–Romaine-2 line
- 735-kV Romaine-2–Arnaud line
- 735-kV Romaine-3–Romaine-4 line
- 735-kV Romaine-4–Montagnais line
- 315/161/13.8-kV Romaine-1 substation
- 735/315/18-kV Romaine-2 substation
- 315/13.8-kV Romaine-3 substation
- 315/13.8-kV Romaine-4 substation
- 735-kV Arnaud substation
- 735-kV Montagnais substation

COST
$12 billion

REGION
Côte-Nord

CONSTRUCTION
2011–2020

EXCLUSIVE WEB CONTENT
- Project fact sheet

Arnaud substation is being modified so it can receive the output of Romaine-1 and Romaine-2 generating stations.

The project to expand the transmission system in Minganie calls for the construction of four new 315-kV and 735-kV lines (500 km) and four new substations, and will entail modifications at Arnaud and Montagnais substations. It will allow the hydropower output of the Romaine complex to be integrated into the transmission system.

PROGRESS IN 2013
- Clearing and construction continued on the Romaine-2–Arnaud line.
- Clearing began on the Romaine-1–Romaine-2, Romaine-4–Montagnais and Romaine-3–Romaine-4 lines.
- Construction continued at Romaine-2 and Arnaud substations.
- We began blasting and earthwork at Romaine-1 and Romaine-3 substations.

Expansion of the transmission system in Minganie: Connecting facilities to the transmission grid (continued)

EXAMPLES OF ENVIRONMENTAL MANAGEMENT ACTIVITIES IN 2013

MITIGATION MEASURES

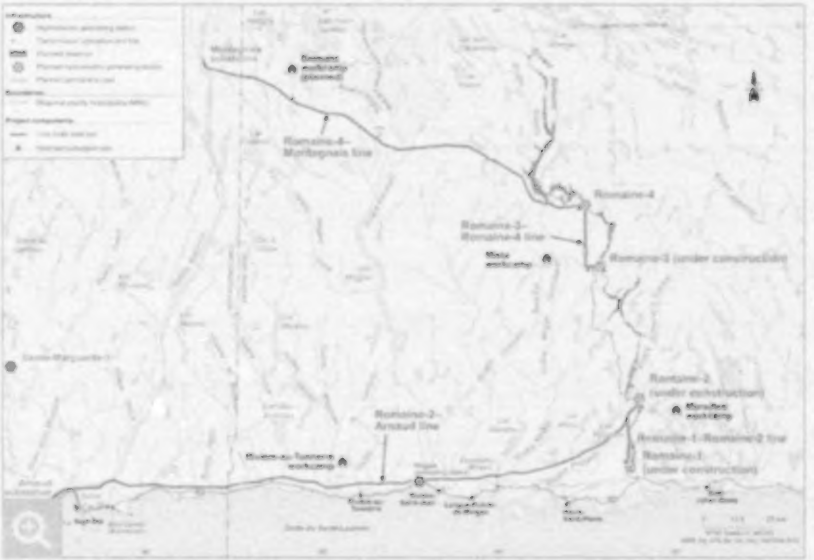
- Specific clearing methods were applied to protect sensitive environments.
- We implemented measures to educate workers about forest-dwelling caribou (posters).
- Spiral-shaped markers were developed to reduce the risk of golden eagle collisions with ground wires on six spans of the Romaine-3–Romaine-4 line.
- Certain access roads were restored to facilitate cohabitation with land users.
- The Electricity Supply Plan was presented to the Côte-Nord region's businesspeople, in an effort to promote local economic spinoffs.

ENVIRONMENTAL FOLLOW-UP

- A review of our knowledge of the impact of transmission lines on the movements of forest-dwelling caribou and of a detailed inventory of populations present in 2012 within 20 km on either side of the future Romaine-4–Montagnais line was submitted to the Ministère du Développement durable, de l'Environnement, de la Faune et des Parcs.

PARTNERSHIPS WITH COMMUNITIES

- Clearing contracts for the Romaine-2–Arnaud line were awarded to Aboriginal companies.
- The regional county municipality (MRC) of Minganie was paid $2.5 million for the northern connection (Romaine-3–Romaine-4 line and Montagnais substation).
- The local and regional population received privileged information throughout the construction of the project.
- Minganie's elected representatives were given a tour of the jobsite.
- Open-house activities were held at Rivière-au-Tonnerre workcamp, approximately 125 km east of Sept-Îles.



Reinforcement of the transmission system in the northeast Montréal metropolitan region

STATUS
Under construction

FACILITIES
- 315-kV Mauricie–Lanaudière line
- 315-kV tap line for Lachenaie substation
- 120-kV Pierre-Le Gardeur–Saint-Sulpice line
- 735/315/120-kV Bout-de-l'Île substation
- 315/25-kV Lachenaie substation
- 315/120-kV Pierre-Le Gardeur substation
- 315/120/25-kV Bélanger substation and 315-kV tap line

COST
$641 million

REGIONS
Montréal and Lanaudière

CONSTRUCTION
2012–2015

EXCLUSIVE WEB CONTENT
- Mauricie–Lanaudière line
- Bout-de-l'Île substation
- Lachenaie substation
- Pierre-Le Gardeur substation
- Bélanger substation

North of Bout-de-l'Île substation, significant enhancements for plants and wildlife will be carried out.

Configured with 315-kV and 120-kV facilities in the late 1950s, the transmission system in the northeast Montréal metropolitan region received its first 735-kV equipment in 1965. It is supplied by three main source substations. Duvernay (735/315/120 kV) and Bout-de-l'Île (315/120 kV) substations serve eastern Montréal; Duvernay and Lanaudière (315/120 kV) substations serve the south of the Lanaudière region. These facilities are connected to 26 satellite substations (120/25 kV) that supply the distribution system.

To meet demand growth in the northeast Montréal metropolitan region, Hydro-Québec must increase the transformer capacity of the region's source and satellite substations. The capacity of a number of the transmission system's substations and lines, whose loads are expected to increase, will soon be exceeded. Four projects—Bout-de-l'Île, Lachenaie, Pierre-Le Gardeur and Bélanger substations—were submitted to the Bureau d'audiences publiques sur l'environnement in 2011. They were approved by the Québec government in early 2012 and got under way in the spring of the same year.

Reinforcement of the transmission system in the northeast Montréal metropolitan region (continued)

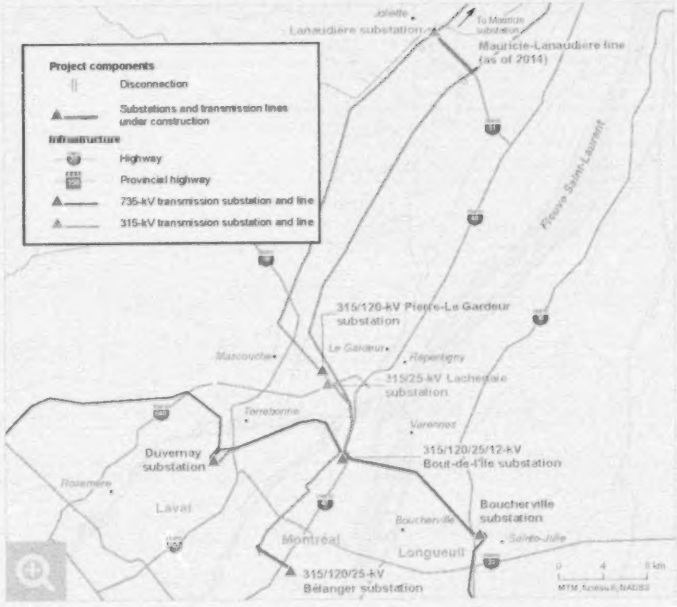
PROGRESS IN 2013

- Construction continued at Bout-de-l'Île, Bélanger and Pierre-Le Gardeur substations.
- Lachenaie substation and a new tap line for Bélanger substation were commissioned.
- A section of Bout-de-l'Île substation was commissioned.

EXAMPLES OF ENVIRONMENTAL MANAGEMENT ACTIVITIES IN 2013

MITIGATION MEASURES

- We began developing a plan to compensate for the areas that were cleared for the Mauricie–Lanaudière line and Pierre-Le Gardeur substation.
- Enhancements for wildlife (nesting boxes for swallows and other bird species, hibernation sites for non-venomous snakes, shelter for small mammals, etc.) and plants (planting of trees and shrubs, seeding with herbaceous plants, pond development and enhancement of a wet meadow) were implemented in the right-of-way north of Bout-de-l'Île substation.



- Landscaping was carried out at Lachenaie and Bélanger substations.
- White roofs were installed to curb the heat island effect at Bélanger and Bout-de-l'Île substations.

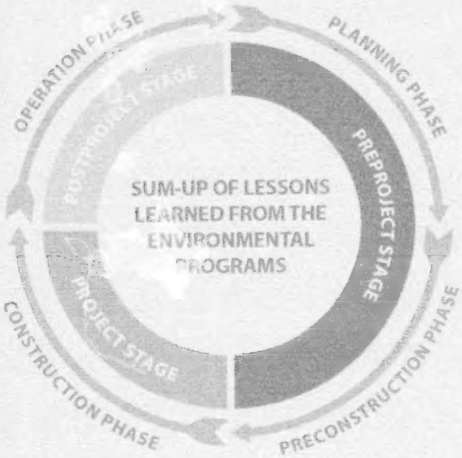
315-KV TAP LINE FOR BÉLANGER SUBSTATION (in French only)

To supply the new Bélanger substation, located in Montréal's Saint-Léonard borough, Hydro-Québec installed a new 315-kV line. This line runs through the city for 4 km supported by 16 tubular towers, chosen for their aesthetic appeal. One of the major phases of the project—the unwinding of cables—was carried out at night to limit the disruption of daytime urban activities as much as possible.

We built the tap line in a residential neighborhood while also maintaining service continuity. To achieve this, we had to ensure safe use of heavy machinery, manage traffic accordingly, limit noise and keep citizens informed.

Follow-up on projects in operation

An environmental follow-up on projects in operation has three objectives: assess the real impacts of the project, compare them with the anticipated impacts and evaluate the effectiveness of mitigation and enhancement measures. The lessons learned are used to improve environmental assessment procedures. Some follow-up continues for as long as 20 years after a project starts operation. Here are a few examples.



EXCLUSIVE WEB CONTENT

- Environmental follow-up and summary of knowledge

SPAWNING GROUND DEVELOPMENT AND FISH PROTECTION

Spawning grounds are sites where fish reproduce. The development of spawning grounds helps preserve fish species present in construction areas.

Péribonka development (Saguenay–Lac-Saint-Jean)

- Use of the walleye spawning ground has increased since reservoir impoundment. This spawning ground contributes significantly to the species' establishment in the reservoir.
- Since 2007, close to 500,000 juvenile lake trout have been released into the reservoir. Fish stocking has finished and follow-up continues.
- Five years after commissioning, the coregonid spawning grounds installed in the reservoir meet the requirements with regard to surface, habitat quality and use.

Eastmain-1-A/Sarcelle/Rupert project (Nord-du-Québec)

- Follow-up on eight spawning grounds developed for walleye, suckers and lake whitefish showed that they are being used.
- Conditions at the fish pass built on the Eastmain (kilometre point 207) are suitable for the upstream migration of all species concerned (walleye, suckers, northern pike and lake sturgeon).

The fish pass built on the Eastmain at kilometre point 207—one of several fish protection measures.

Chute-Allard and Rapides-des-Cœurs developments (Mauricie)

- Follow-up on spawning in Rapides-des-Cœurs tailbay showed that the entire bay is being used by walleye and, to a lesser extent, by suckers. In low runoff conditions, an increase in the area used for spawning was observed in the sectors where there was concern about habitat losses.

Partial diversion of the Portneuf and Sault aux Cochons rivers (Côte-Nord)

- Environmental follow-up on fish is finished: the water management system and fish developments are adequate for the survival of the fish populations (lake trout and brook trout).

INSTREAM FLOWS

An instream flow is the minimum flow required for the proper functioning of a stream's ecosystems.

Eastmain-1-A/Sarcelle/Rupert project (Nord-du-Québec)

- Following the partial diversion of the Rupert, the environmental follow-up showed that the instream flows are suitable for all fish populations. Moreover, an increase in the quality and quantity of lake sturgeon habitats was observed, along with the spawning success of this species.

BANK EROSION AND ICE MONITORING

Erosion is a dynamic process influenced by natural factors such as wind and currents. Various measures are implemented during project construction to protect banks and limit their erosion, with a view to preserving wildlife and plant species that live there.

Sainte-Marguerite-3 development (Côte-Nord)

- Final year of follow-up since the generating station was commissioned in 2003. In 2012, erosion was noted in 4.9% of the reservoir's banks.

Chute-Allard and Rapide-des-Cœurs developments (Mauricie)

- The erosion-sensitive section of the forebay banks is in almost the same condition as it was in 2010, at the time of the first follow-up.

WETLANDS

The construction of hydroelectric facilities brings about changes in the vegetation affected by the projects. To compensate for the loss of flooded wetlands, Hydro-Québec develops new ones, restores borrow pits used during construction and rehabilitates existing wetlands.

Partial diversion of the Portneuf and Sault aux Cochons rivers (Côte-Nord)

- The partial diversion led to changes in some of the wetlands in the study area, most of which were anticipated in the draft design. The majority of these changes are minor and do not affect the ecological value of the wetlands. End of follow-up.
- Eight years after vegetation planting, the inventory results show that site reforestation and ecological restoration efforts were successful. Signs of ecological restoration were observed at all sites visited (natural regeneration of vegetation, restoration of the litter and humus layer).

BIRDS

Project construction can impact birds living close to the facilities. Various measures, such as the construction of platforms, are implemented to preserve bird habitats.

Eastmain-1-A/Sarcelle/Rupert project (Nord-du-Québec)

- A follow-up program for special-status or special-interest bird species was established to track changes in breeding populations. An inventory was conducted in 2012, the first year of environmental follow-up on the short-eared owl, great grey owl and Bonaparte's gull that still frequent this area.

Péribonka development (Saguenay–Lac-Saint-Jean)

- Waterfowl abundance on the reservoir totaled 66.5 breeding pairs, less than the baseline figure (123.5) but similar to values recorded during the construction phase.
- The last waterfowl inventories conducted in 2012 show that the abundance of breeding waterfowl on the reservoir has gradually increased. The wetlands in a former borrow pit have also been used, since their development, by waterfowl pairs and broods.

The great grey owl, a protected species.

HUMAN ENVIRONMENT

Combined with information and consultation activities, studies of the human environment (land use, social impacts, economic spinoffs, navigation, etc.) help Hydro-Québec better understand the concerns of affected communities, define and better manage the relevant challenges, determine the impacts and the mitigation measures required, and assess the effectiveness of these measures.

Eastmain-1-A/Sarcelle/Rupert project (Nord-du-Québec)

- According to the survey of the main tourism and recreation stakeholders, the most popular activities are hunting and fishing, and snowmobile packages. New activities related to Aboriginal cultural tourism, nature observation, outdoor activities and adventure are being developed, in line with market trends.

ACCEPTABILITY AND SPINOFFS FROM PROJECTS AND OPERATIONS

The Grandes-Piles marina on the Saint-Maurice between La Tuque and Grand-Mère. Hydro-Québec manages a number of facilities along this river and works with the Corporation de développement de la rivière Saint-Maurice on such issues as navigability.

All Hydro-Québec projects must meet three conditions to get the green light: they must be profitable, environmentally acceptable and favorably received by the host community. The company works with communities, not just for construction projects, but for all aspects of its business, including facility operation and procurement of goods and services.

SOCIAL ACCEPTABILITY AND PUBLIC PARTICIPATION

Businesses are increasingly recognizing the need to be good corporate citizens in addition to meeting regulatory requirements. Having made public participation a business practice since the late 1970s, Hydro-Québec is a pioneer in incorporating Québec stakeholders' concerns into the design of power generation and transmission projects. In addition to considering its own objectives and resources, the company works with stakeholders to find the best project variant from social, environmental and economic standpoints.

2013 HIGHLIGHTS

- Information sessions with elected representatives and stakeholders in 433 municipalities covered distribution system business practices, including outages and emergencies, vegetation control, next-generation meters, street lighting, pole installation

735-KV CHAMOUCHOUANE–BOUT-DE-L'ÎLE PROJECT

The environmental impact statement for the 735-kV Chamouchouane–Bout-de-l'Île project, an essential and substantial project for Hydro-Québec, was filed in February 2014. The notice of acceptability for this report will be an important project milestone, allowing it to be reviewed by the Bureau d'audiences publiques sur l'environnement. If Hydro-Québec obtains all the necessary approvals for this project, construction could begin in 2015, with commissioning in 2018. Over the past three years, a series of environmental and technical studies have been conducted, along with many communications activities, to optimize this 425-km line project. The line will link Chamouchouane substation, in Saguenay–Lac-Saint-Jean, to the Montréal loop and provide a separate supply to Bout-de-l'Île substation.

EXCLUSIVE WEB CONTENT

- Public participation in a power transmission project
- Public participation in a major project
- Land use and landscaping
- Archaeology and heritage

and undergrounding. In a survey, 89% of respondents said they were very or completely satisfied with the activity. The tour will continue in 2014.

- Topics discussed during meetings of the Hydro-Québec and Fédération québécoise des municipalités liaison committee: the Electric Circuit, radio frequencies, energy efficiency programs for municipalities, action plan on the occupancy and vitality of territories, transmission line and substation projects, etc.
- Topics discussed during meetings of the Hydro-Québec and Union des producteurs agricoles liaison committee: results of energy efficiency programs for farmers, activities of the special committee on stray voltage, Chamouchouane–Bout-de-l'Île project, issues related to greenhouse operation.
- Topics discussed during a meeting of the Rupert River Water Management Board (composed of representatives of the Nemaska and Waskaganish communities, Grand Council of the Crees [Eeyou Istchee], Cree Regional Authority, Hydro-Québec and a chair appointed by the parties to the Rupert water management agreement): lake cisco reproduction and fishing at Smokey Hill rapids, spring flooding of some goose hunting grounds, river flow, etc.

PROTECTING PLANTS, ANIMALS AND THEIR DIVERSITY

According to UNESCO, biodiversity conservation is a worldwide concern. Canada and Québec are committed to the *Convention on Biological Diversity*, signed by 160 countries since 1992. The commitments have taken the form of laws and regulations, including the *Species at Risk Act* adopted by the Canadian Parliament in 2002 and the *Act respecting threatened or vulnerable specie* adopted by the Québec National Assembly in 1989.

Hydro-Québec endeavors to protect plants, animals and their habitats. The environmental studies and follow-ups

EXAMPLES OF PUBLIC PARTICIPATION IN 2013

PROJECT	STATUS	PROJECT DESCRIPTION	ACTIVITIES
230-kV Québec–Limoilou underground line (Capitale-Nationale)	Under study	Construction of an underground transmission line to link the new Limoilou substation with Québec substation. The line will have two separate loops, one 5.8 km long and the other 5.3 km long.	Hydro-Québec's proposed underground link raised host community concerns regarding electromagnetic fields. An information and exchange committee (TIE) involved community representatives in the search for solutions. Routes have been optimized: the line will be buried under public thoroughfares away from residential buildings. The TIE members approved the optimized routes in spring 2013.
120-kV Grand-Brûlé–Saint-Sauveur supply line (Laurentides)	Under study	Construction of a 120-kV line about 40 km long in the Laurentides and Pays-d'en-Haut regional county municipalities (MRCs). The line will transfer the electricity supply of Saint-Sauveur and Doc-Grignon (Sainte-Adèle) satellite substations to Grand-Brûlé source substation (Mont-Tremblant) and supply a third satellite substation if needed.	After more than 60 meetings with local organizations and four open-house events, the project still raises concerns, especially among Saint-Adolphe-d'Howard residents. A regional technical committee, composed of land-use, environmental, landscape and engineering specialists delegated by the municipalities concerned, was set up to recommend a lower-impact route that reconciles host community concerns with Hydro-Québec's obligation to meet electricity needs over the next 20 years. The committee will continue its deliberations in 2014.
Fleury 315/25-kV substation and 315-kV tap line (Montréal)	Under study	Construction of a transformer substation, mostly on the existing Fleury substation site, and a line in an existing right-of-way to connect Charland and Fleury substations.	In order to contact as many citizens as possible, mostly tenants in highly urbanized areas, Hydro-Québec went door-to-door to invite them to information activities. Building owners were contacted by regular mail.

that it has conducted for over 40 years show that none of the plant or animal species studied have been extirpated. The company also supports the recovery of at-risk species.

To contribute to achieving the government's objective of creating protected areas (12% of the province's territory in 2015), Hydro-Québec analyses the Québec government's proposals and harmonizes the network of protected areas with hydroelectric development and operations. As at December 2013, 9.2% of the province's area was protected.

2013 HIGHLIGHTS

- Hydro-Québec participated in the work of six at-risk-species recovery teams coordinated by the Ministère du Développement durable, de l'Environnement, de la Faune et des Parcs. The objective: to protect 15 at-risk wildlife species in Québec, such as the western chorus frog and golden eagle.
- 15 research projects in the Ouranos ÉcoBioCC science program were finalized. Ouranos is a consortium of 400 scientists and professionals, some from Hydro-Québec. The program's objective: to reduce ecosystem and human vulnerability to climate change and enhance their adaptability.
- An impact assessment report was published on the effects of transmission lines on forest-dwelling caribou in Québec. Based on over 800,000 pieces of telemetric data, the study showed that caribou tend to avoid line rights-of-way in areas with relatively little human activity. We will consequently be able to improve siting criteria for transmission facilities and, as a precautionary measure, keep lines away from major caribou travel corridors.

RELATIONS WITH ABORIGINAL COMMUNITIES

Québec's 11 Aboriginal nations, in 55 communities, account for about 1% of the province's population. Many of these communities are in areas with high hydroelectric potential. Hydro-Québec seeks to develop mutually beneficial partnerships with these communities. We call upon their knowledge of the natural environment when conducting environmental inventories and implementing mitigation measures.

Since 1975, Hydro-Québec has signed some 30 agreements with Aboriginal nations and communities regarding development projects. These agreements enable them to participate in project construction and the environmental follow-up programs and to benefit from the economic spinoffs. For example, three agreements (in French only) were signed by Hydro-Québec and four Côte-Nord Innu communities as part of the Romaine project.

2013 HIGHLIGHTS

- Various partnership activities were conducted with Côte-Nord Innu communities (p. 30).
- Two agreements were signed with the Nunavik Landholding Corporation Association and Makivik Corporation relating to work done by Hydro-Québec in Inukjuak and Kuujjuaq. These agreements will facilitate ongoing construction of the new diesel power plant in Akulivik.
- Seven new permanent Cree employees were hired, bringing the total number of Crees working for Hydro-Québec in Baie-James to 59.
- 107 employees participated in an in-house training program about Aboriginal nations and communities, and Hydro-Québec's business relations with them.

Power system electrician Jasmin Mowatt checks the control panel for the air/oil pressure system on a generating unit at Sarcelle powerhouse.

4% OF GDP

In Québec, the value added in 2013 by the power generation, transmission and distribution industry was estimated to be about $13 billion.[a] Since Hydro-Québec accounts for over 90% of this industry, its stake in the Québec economy is about 4% of the gross domestic product (GDP).

a) Estimated value, in current dollars. Excludes Hydro-Québec's construction activities, R&D and subsidiaries' operations.

Sources: Hydro-Québec and Institut de la statistique du Québec.

- Participation in the Eastmain-1-A/Sarcelle/Rupert environmental follow-up program is coordinated by the Monitoring Committee, which is a joint forum that promotes Cree participation in program design and execution.

SPINOFFS FROM PROJECTS AND OPERATIONS

Hydro-Québec's investments, procurement, dividends paid to the Québec government and consulting-engineering expertise make it a major driving force in the Québec economy. Every year, the spinoffs from its operations generate billions of dollars and thousands of jobs, contributing to the economic vitality of many regions of the province.

2013 HIGHLIGHTS

- Procurement of goods and services inside and outside Québec (excluding procurement by Société d'énergie de la Baie James) totaled $3,533 million in 2013 ($3,011 million in 2012).
  - $1,305 million for the purchase of goods
  - $25 million for rentals and leasing
  - $1,818 million for specialized services and other work
  - $385 million for professional services
- Procurement of goods and services from Québec-based businesses was $3,370 million (95% of the total).
- An information tour of Abitibi-Témiscamingue MRCs and chambers of commerce, in conjunction with Emploi Québec and the Abitibi-Témiscamingue economic spinoff committee (ComaxAT), informed businesspeople about Hydro-Québec's procurement processes.
- The Côte-Nord regional economic spinoffs committee consists of local economic leaders and includes representatives of the Innu and Mingan communities that signed agreements. The members worked on improving business practices, seeking new business opportunities for the region and organizing information activities, particularly when major calls for tenders are issued and large contracts are awarded.

HYDRO-QUÉBEC'S CONTRIBUTION TO THE QUÉBEC ECONOMY

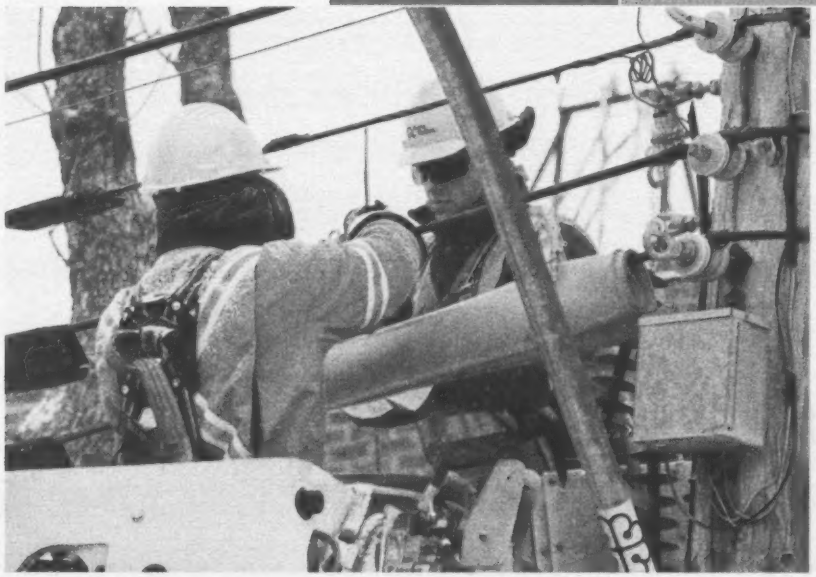
	2010	2011	2012	**2013**
Dividend ($M)	1,886	1,958	645	2,207
Public utilities tax ($M)	262	244	252	245
Water-power royalties ($M)	557	593	617	669
Municipal and school taxes ($M)	34	35	36	36
Procurement from Québec-based companies (%)	91	93	94	95
Community investments ($M)[a]	36	30	29	31

a) Community investments include all the items listed on page 57.

BRODERIE SIGNATURE

Since 2009, Broderie Signature (in French only) has manufactured the bags used by Hydro-Québec line workers. This company, established in 1983, provides long-term employment for people with functional (physical and intellectual) limitations. The contract signed with Broderie Signature provides for delivery of 26,000 bags in different styles and materials over a five-year period.

RESPONSIBILITY FOR ELECTRICITY SERVICE



In fair weather or foul, line crew chief Maxime Morin and line worker Charles Tremblay keep the distribution system in good working order.

Jean-Simon Désilets installs a next-generation meter.

Over and above the measures taken to secure a reliable electricity supply for Quebecers, Hydro-Québec continues to invest in facility development and maintenance to provide high-quality service. In 2013, the company invested $416 million in refurbishment or optimization of important components of the generating fleet, $917 million in long-term operability of the transmission system and $456 million in long-term operability of the distribution system.

RELIABLE ELECTRICITY SERVICE

Service reliability is measured by the system average interruption duration index (SAIDI), which reflects the average number of minutes of service interruption per customer. Interruptions involve various types of transmission or distribution system equipment, depending on the cause: scheduled system maintenance, weather conditions, vegetation, defective equipment, or other. As at December 31, the SAIDI was 165 minutes per customer.

NEXT-GENERATION METERS

The company must replace its 3.8 million meters with next-generation equipment, as the old meters are no longer manufactured in North America. Rollout of this advanced metering infrastructure began in February 2013 and all meters are to be replaced within five years.

EXCLUSIVE WEB CONTENT

- Vegetation, safety and power lines
- Next-generation meters
- Declaration of ISO 14001 environmental principles
- Contaminated sites and spills
- Insulating oil

Over 125 million next-generation meters are already in use worldwide. Safe and reliable, they incorporate functions that improve customer service: automatic transmission of electricity consumption data, billing based on actual use instead of estimates, fast outage detection and capability for customers to monitor their electricity use online. The average exposure to radio-frequency emissions one metre away from a next-generation meter is well below Health Canada limits (120,000 times lower). See page 53 for more information.

In accordance with a Régie de l'énergie decision, a customer who does not want a next-generation meter installed may opt out of the program by paying for installation of a non-communicating meter and the monthly meter-reading charge.

2013 HIGHLIGHTS

- 1,136,000 next-generation meters were installed, which represents over 65% of the 1.7 million replacements planned for the first project phase scheduled to end in June 2014.
- In the four regions affected by the first project phase (Montréal, Laurentides, Lanaudière and Montérégie), numerous communication events were held: meetings with elected representatives of municipalities and MRCs, open-house events, dedicated hotline for concerned customers, etc.
- The percentage of customers who opt out remained stable at about 0.3%; this is lower than the initial assumption of 1%.
- An application has been filed for Régie de l'énergie approval to roll out the advanced metering infrastructure in other Québec regions (phases 2 and 3).

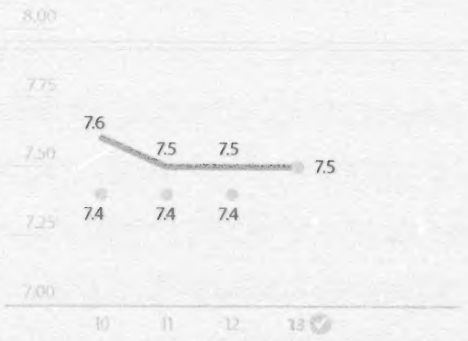
CUSTOMER SATISFACTION

Customer satisfaction—a top priority for Hydro-Québec—has been assessed since 1992 in surveys that inform the company of customers' expectations and degree of satisfaction. In compliance with the *Act respecting the Régie de l'énergie*, a complaints mechanism is in place to enable customers who feel they have been wronged to express their dissatisfaction.

2013 HIGHLIGHTS

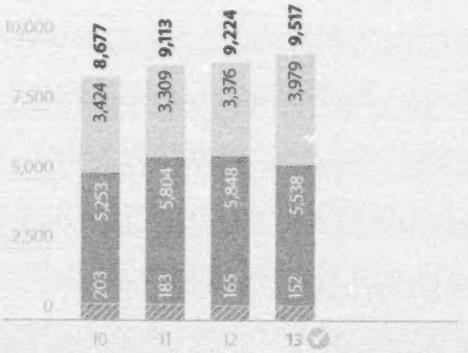
- No substantiated complaints were received regarding breaches of customer privacy or loss of personal information.
- Customer concerns relating to the new meter installation project generated 320 complaints (6% of all complaints), including five appeals to the Régie de l'énergie.
- The number of complaints about outages rose, as a result of bad weather: 194 complaints (4%), compared to 148 in 2012 (3%).
- Fewer complaints were received about hook-up delays: 286 complaints (5%), compared to 473 in 2012 (8%).
- The number of billing-related complaints fell: 1,919 complaints (35%), compared to 2,437 in 2012 (41%).

OVERALL CUSTOMER SATISFACTION INDEX
(scale of 10)



Overall satisfaction index (excluding large-power customers)
Target

CUSTOMER COMPLAINTS AND CLAIMS (number)



Complaints
Claims
Appeals to the Régie de l'énergie

FAIRNESS FOR CUSTOMERS

To be fair to its customers, Hydro-Québec ensures that they each pay a reasonable amount for the services they receive. Disconnection for nonpayment is a last resort. From December 1 to March 31, service is maintained or restored to customers whose homes are heated with electricity and who have failed to pay their bills.

Every year, thousands of low-income customers who have difficulty paying their bills benefit from special long-term payment arrangements. To improve collection services for these customers, Hydro-Québec has set up various communication channels with constituency offices and consumer associations, including a consumer working group that met five times in 2013. A working group of community organizations monitors proposed solutions related to the products and services offered to low-income households. Collection practices and energy efficiency are among the possibilities considered. This working group met twice in 2013.

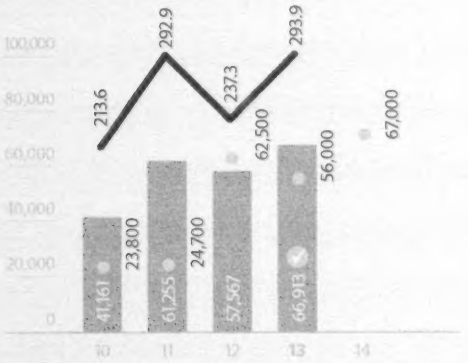
To facilitate business relations and the collection process with customers who do not have a good command of either French or English, Hydro-Québec deals with four non-profit organizations that provide translation services in 19 languages and guarantee that the information exchanged will remain strictly confidential.

Customer services representative Marylène Asselin uses diagnostic software to assist a customer who is online.

2013 HIGHLIGHTS

- Payment arrangements were negotiated with residential customers to facilitate 209,971 settlements totaling $477 million in arrears.
- 66,913 long-term payment arrangements covering $294 million were reached with low-income customers; 19,232 of these agreements, amounting to $19 million, provided assistance with payment of arrears and, if necessary, for current electricity use.
- 111 employees attended a workshop on doing business in a context of poverty.

PORTFOLIO OF COLLECTION SOLUTIONS: ARRANGEMENTS – LOW-INCOME HOUSEHOLDS[a]



Number
Gross amount ($M)
Target (number)

a) Includes long-term arrangements.

VEGETATION CONTROL

To ensure that service is reliable and its facilities are safe, Hydro-Québec must control the vegetation in its transmission and distribution line rights-of-way and on dikes and dams. Environmental considerations are very important. For example, the long-term results for transmission line rights-of-way show that mechanical treatment with rational use of herbicides preserves biodiversity and promotes the growth and maintenance of vegetation that is compatible with system operation.

MANAGING THE IMPACTS OF SERVICE

Since the late 1990s, ISO 14001–certified environmental management systems have guided Hydro-Québec operations that could have an effect on the environment and have improved the company's environmental performance in many ways. Hydro-Québec also works with various organizations to improve its practices.

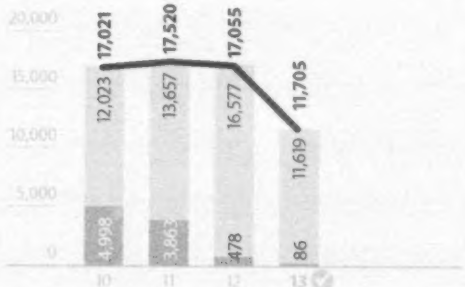
2013 HIGHLIGHTS

- 1.76 million litres of drinking water were saved through our administrative building refurbishment program. Recurring savings since 2007 total 245 million litres, enough to fill 82 Olympic-size swimming pools.
- Eight buildings earned BOMA BESt certification, which assesses the environmental performance and management of commercial buildings in Canada according to specific criteria. Of the buildings for which certification was renewed in 2013, five achieved level 3 (out of 4) and only one of them performed at the same level as for the 2010 certification. The performance improvement is mainly attributable to optimization of administrative building operating practices. Head office certification was renewed in 2012 (level 3), and six other buildings will renew in 2014.

DISTRIBUTION SYSTEM VEGETATION CONTROL

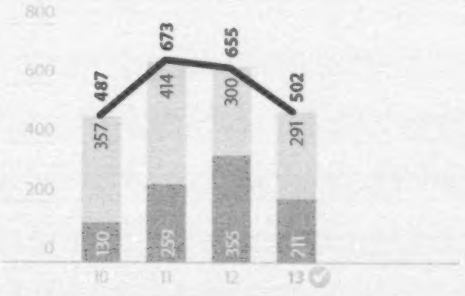
For the safety of the public and workers, and to prevent outages and ensure reliable system operation, Hydro-Québec controls vegetation around distribution system power lines. Clearing is done in an environmentally responsible manner and preserves biodiversity near the lines. Vegetation control operations are planned by Hydro-Québec's forest engineers and technicians, and carried out by qualified contractors.

VEGETATION CONTROL ALONG TRANSMISSION LINE RIGHTS-OF-WAY[a] (ha)



a) The total area of transmission line rights-of-way to be maintained is 170,246 ha, about the same as last year. The transmission vegetation control schedule is available online (in French only). In 2013, 11,705 hectares were treated, down 31.4% from 2012 owing mainly to the priorities set in the Transmission Vegetation Management Program. Compliance with this standard resulted in more work being done in smaller areas. Herbicides were used on only 1% of the area treated.

VEGETATION CONTROL ON DIKES AND DAMS (ha)



- Area treated selectively with herbicides
- Area treated mechanically
- Total area treated

■ Gold-level Clé Verte (in French only) environmental certification was awarded to four vehicle repair shops (Beauport, Chicoutimi, Granby and Mont-Laurier). The Clé Verte (Green Wrench) program acknowledges repair shops that adhere to the best environmental practices.

■ In administrative building ventilation systems, disposable air filters were replaced with long-term washable and recyclable air filters. This measure prevents more than 18,000 filters per year from being sent to landfill and reduces employees' annual workload by about 3,000 hours.

PROCUREMENT, RECOVERY, REUSE AND RECYCLING OF RESIDUAL MATERIALS – SOME STATISTICS

	2013		
	PROCUREMENT	RECOVERY	NOTES
Printer cartridges and accessories (units)	17,035	23,840	Purchased recycled cartridges accounted for 30% (26% in 2012).
Computer equipment			Computer and electronic equipment is collected by a company that employs people with functional limitations. After the data is erased, equipment that still has value is sold or given to charities. Obsolete or damaged equipment is dismantled and recycled.
■ Purchased (units)[a]	7,551	not applicable	
■ Computers (units)	not applicable	3,757	
Wooden pallets (units)	not available	25,861	Nearly 11% of the recovered pallets are reused internally, while 64% are given to a company that reconditions and reuses them. Pallets in poor condition are recycled.
Paper and paperboard (tonnes)	294	1,340	Purchases were for paper only. They decreased 19% compared to 2012. Recovered: 878 t of paperboard and 462 t of paper.
Porcelain from transmission line insulators (tonnes)	not available	71	All insulators are crushed. Metals and porcelain are recycled.
Clothing (kilograms)	not available	9,235	Collection is handled by CFERs in Alma and Boucherville. Clothing that is still usable is reconditioned and sold. Worn-out clothing is recycled when possible.
Metal (tonnes)	not applicable	10,955	Metal is sold for recycling.

a) Computer equipment includes desktop, laptop and workstation computers and monitors.

QUÉBEC NETWORK OF BUSINESS AND RECYCLING TRAINING CENTRES

For the past decade, Hydro-Québec has partnered with the Réseau québécois des centres de formation en entreprise et récupération (in French only) (CFER). The business and recycling training centres in the network recover and recycle materials while helping young people aged 15 to 18 who are having difficulty in school develop vocational skills that will enable them to enter the labor market more easily. The CFERs encourage young people to remain in school and endeavor to develop citizens' sense of responsibility and support for the environment and sustainability.

The Normand-Maurice CFER in Victoriaville recovered 437 tonnes of Hydro-Québec's power-line hardware in 2013. Parts in good condition were re-milled and reused, while damaged parts were recycled.

TECHNOLOGICAL INNOVATION

IREQ's high voltage laboratory in Varennes, where transformers, circuit breakers, disconnect switches, insulators and other equipment are tested.

The only power utility in North America to operate a major research centre, the Institut de recherche d'Hydro-Québec (IREQ), Hydro-Québec earmarks about $100 million per year for R&D and innovation projects that will enhance the performance of its services and operations, and lay the groundwork for tomorrow's system. IREQ focuses on reliability and asset sustainment, energy efficiency, transportation electrification and emerging renewable energies.

PERFORMANCE OF SERVICES AND OPERATIONS

In cooperation with IREQ and its partners, Hydro-Québec's divisions look to innovation to improve their performance and customer service. Innovative technological solutions boost generator capacity, update the system, improve demand management, protect the environment and keep workers safe.

A first: at the site of the future Lefrançois substation in the Capitale-Nationale region, a drone is launched to take topographic readings.

EXCLUSIVE WEB CONTENT

- Transportation electrification
- Technological innovation
- Support for university chairs

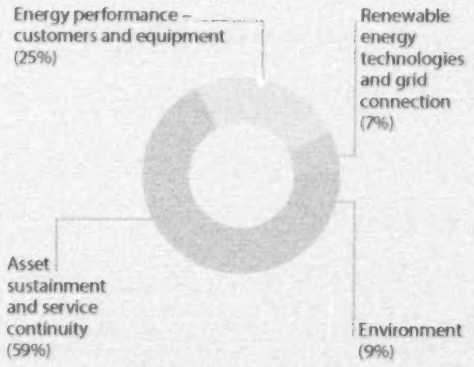
EXAMPLES OF SUSTAINABILITY-RELATED INNOVATION PROJECTS – 2013

CATEGORY	ACHIEVEMENT OR WORK IN PROGRESS	INVESTMENT ($'000)[a]
Environment	▪ Optimization of operation, maintenance and long-term operability of oily water recovery structures in transmission substations and update of oil recovery system design criteria. ▪ Study of the use of ultrasound guidance technology to divert American shad (in French only) away from the generating station. The objective: reduce the mortality rate during annual migration. This equipment has a variable-capacity, programmable ultrasound generator, powerful transducers and a swinging arm to facilitate submersion in the water. So far, the technology has proven to be effective.	5,340
Asset sustainment and service continuity	▪ Projects to optimize facility, structure and equipment design and management. Objectives: extend service life and support decisions regarding refurbishment or replacement. Projects also improve understanding and simulate aging mechanisms to improve diagnostics and prediction of remaining service life.	36,936
Energy performance – customers and equipment	▪ Pilot projects to test electricity demand management strategies for reducing winter peak consumption with voluntary measures that do not affect customer comfort (e.g., deferred use of water heaters and heating). These projects target residential, commercial and institutional customers. Objective: identify a potential 50-MW reduction in peak-period consumption by 2016. The current results are promising and voluntary measures may be suggested to various types of customers in the near future. ▪ Development and distribution of energy optimization tools for buildings (SIMEB).	15,830
Renewable energy technologies and grid connection	▪ Study of the most recent processes in dynamic load management, energy storage, wind forecasting and diesel motor operation. The study will also promote grid connection of renewable energy sources (wind and other) and optimize their operation. ▪ See Energy Portfolio section, page 26.	4,075

a) Excludes investments in energy storage and conversion.

Researchers Mélanie Lévesque and Claude Hudon examine part of a generator bus. Their work deals with degradation mechanisms in electrical equipment.

BREAKDOWN OF IREQ INNOVATION EFFORTS RELATED TO SUSTAINABILITY – 2013[a]


Energy performance – customers and equipment (25%)
Renewable energy technologies and grid connection (7%)
Asset sustainment and service continuity (59%)
Environment (9%)

a) Excludes investments in energy storage and conversion.

2013 HIGHLIGHTS

- A remote manipulator developed by IREQ for use in maintenance of live distribution line conductors enables line workers to do their jobs safely without interrupting service and significantly reduces repair time. At year-end, 10 manipulators were already being used.
- A three-year scientific collaboration agreement in the field of deep geothermal energy was signed with the water, earth and environment research centre at Québec's Institut national de la recherche scientifique (INRS-ETE). The objective: continue research and validate the results of preliminary studies on geothermal potential in the Trois-Rivières, Gaspésie, Îles-de-la-Madeleine and Nunavik regions.
- Funding and professional support was provided, in conjunction with the Natural Sciences and Engineering Research Council of Canada, for a three-year project at Collège Shawinigan/CNETE on optimizing pressure-retarded osmosis to generate electricity from salinity gradient energy.

TRANSPORTATION ELECTRIFICATION

In Québec, transportation accounts for nearly 45% of GHG emissions, the main cause of climate change. Given that over 99% of the province's electricity comes from renewable sources, the Québec government wants to electrify transportation as an efficient way to combat climate change. As part of its economic policy on using surplus electricity, the government has adopted a Transportation Electrification Strategy in which Hydro-Québec is a participant.

Hydro-Québec conducts projects, including road tests, to demonstrate the reliability and interest of rechargeable electric vehicles. After contributing to the development of technologies that promote the popularity of electric vehicles, the company intends to remain a leader in integrating rechargeable electric vehicles into the distribution system.

With 241 240-V and 400-V charging stations at the end of 2013, the Electric Circuit is the first public charging network in Canada. Since its inauguration in March 2012, over 50 partners have joined the Electric Circuit, expanding the network into 14 administrative regions in Québec. User benefits include a 24/7 telephone help line run by CAA-Québec and an interactive charging station locator service. Although vehicles are generally recharged at home or at work, where they are parked most of the time, their range can be extended by using the 240-V charging stations. If a vehicle has quick-charging capability, a 400-V terminal will shorten the charging time.

CHANGES IN QUÉBEC'S ELECTRIC CIRCUIT CHARGING NETWORK (number)

	2012[a]	2013
Charging stations	136	241
Partners	23	53
Members	658	1,524
Administrative regions	10	14

a) Inaugurated on March 30, 2012.

LOCATION OF CHARGING STATIONS IN QUÉBEC

SATISFACTION SURVEY – THE ELECTRIC CIRCUIT

According to a survey of 1,425 members conducted from December 5 to 12, 2013, (367 respondents):

- Most of the respondents found the Web site user-friendly and appreciated their experience at the charging station.
- Half of them wanted more points of service.
- Satisfaction with rates was divided. This issue will be submitted to discussion groups to understand the concerns and satisfy users.

2013 HIGHLIGHTS

- Results of the largest electric vehicle testing program in Canada (in French only): this 30-month project, conducted in Boucherville, was intended to gain a better understanding of the impact of driver behavior and weather on use and charging, determine average consumption and compile vehicle charging profiles. The review showed that 80% of trips were 60 km or less, requiring only charging at home with a standard 120-V outlet. Vehicle range dropped 40% in winter owing to greater use of heating. The average amount of electricity used for charging was 8 kWh per day, which is 50% of battery capacity, with an average charging time of 5.4 hours at 120 V and 2.6 hours at 240 V.
- Since November 2013, quick charging has been available at a 400-V charging station at the St-Hubert restaurant in Boucherville. Under ideal conditions, a fast charge to 80% of battery capacity will take only about 30 minutes for an all-electric vehicle. In winter, the charging time at a 400-V station may increase substantially; the 240-V charging stations are not influenced by the temperature, however.
- Two agreements were signed with Arkema, a French producer of specialty chemicals and high-performance materials: the first was a licence to manufacture lithium fluoride salt and molten salts (ionic liquid) for electrolytes, materials developed by IREQ, and the second was for a two-year joint R&D project to develop safe electrolytes for lithium-ion batteries.

CONTRIBUTIONS, COMMITMENTS, RESEARCH CHAIR FUNDING AND RESEARCH CONTRACTS ($'000)

EDUCATIONAL INSTITUTION OR RESEARCH GROUP	2010	2011	2012[a]	2013[b]
Université de Montréal	244.7	323.1	315.8	996.3
HEC Montréal	31.0	0.0	25.0	25.0
Polytechnique Montréal	454.8	632.1	1,650.4	653.3
Université du Québec en Abitibi-Témiscamingue	51.3	51.0	65.0	65.1
Université du Québec à Chicoutimi	325.4	240.7	80.0	129.7
Université du Québec à Montréal	1,521.6	996.1	1,018.9	749.0
Université du Québec en Outaouais	125.0	0.0	0.0	0.0
Université du Québec à Rimouski	35.0	100.0	240.0	270.0
Université du Québec à Trois-Rivières	300.0	222.0	277.5	306.4
École de technologie supérieure	440.0	379.3	496.0	496.0
Institut national de recherche scientifique	38.5	5.0	183.4	7.5
McGill University	1,200.0	1,210.0	1,076.5	1,442.0
Concordia University	608.0	600.0	481.0	812.0
Université Laval	1,300.6	844.1	1,265.3	1,414.7
Université de Sherbrooke	526.9	584.5	1,259.9	1,064.8
Ouranos, Cirano and Institute of Electrical Power Engineering	1,706.8	1,839.7	1,898.4	1,840.2
Institutions outside Québec	895.8	490.1	556.5	593.9
College technology transfer centres	not applicable	not applicable	not applicable	195.2
Total	**9,805.4**	**8,517.7**	**10,889.6**	**11,061.1**

a) Includes $3.5 million recorded as donations and sponsorships.
b) Includes $3.2 million recorded as donations and sponsorships.

OPEN INNOVATION

When it comes to innovation, Hydro-Québec takes a partnering approach with educational institutions, public research organizations and industrial partners, which gives it complementary expertise and allows resources and risks to be shared. For example, the company supports Québec universities with research contracts and funds university chairs. It also works with the Ouranos Consortium on Regional Climatology and Adaptation to Climate Change.

HEALTH AND SAFETY

Acoustical engineer Franck Duchassin measures noise with a sound-level meter. Hydro-Québec checks noise in facilities located in residential districts regularly to preserve residents' quality of life.

On a line-construction jobsite, line equipment inspector Alain Compartino checks coworker Antoine Morin's safety harness, which can weigh up to 30 kilograms. Safety is essential.

Hydro-Québec studies its operations' potential effects on human health and endeavors to mitigate risks and inconveniences. It also maintains secure access to its facilities and informs the public about the hazards inherent in electricity use.

ELECTRIC AND MAGNETIC FIELDS

Live conductors and electrical equipment generate electric and magnetic fields (EMFs); extensive research has been done on their potential effects.

2013 HIGHLIGHTS

- Research has not revealed any EMF impacts on human health. Nevertheless, Hydro-Québec is continuing to support research and monitor knowledge developments (Hydro-Québec's position).
- New online videos inform the public about the health effects of 60-Hertz magnetic fields.
- Hydro-Québec disseminated a Conseil médical opinion (in French only) on the effects of EMFs on health, based on 40 years of research. Concerns that magnetic fields in residential areas increase the risk of cancer in children have not been substantiated.

EXCLUSIVE WEB CONTENT

- Information on electric and magnetic fields
- The Power System and Health – Electric and Magnetic Fields brochure
- Next-generation meters
- Hydro-Québec and the mercury issue
- Safety near power lines
- Safety near hydropower facilities

RADIO FREQUENCIES

Some people worry about the health effects of radio frequencies emitted by next-generation meters, but an analysis of scientific literature indicates that the radio frequencies emitted by the meters are not hazardous to health. The average radio-frequency exposure level one metre away from a next-generation meter is 120,000 times lower than the Health Canada limit and is negligible compared to radio-frequency exposure from other devices.

2013 HIGHLIGHTS

- In December, an opinion (in French only) issued by the Ministère de la Santé et des Services sociaux stated that the new meters' radio frequencies do not pose any health risk.
- Radio frequency interference with pacemakers: the study by Hydro-Québec, the Montreal Heart Institute and Medtronic is complete. The results show that the new meters' radio frequencies do not interfere with pacemakers.

MERCURY

Reservoir impoundment changes the mercury contained in flooded vegetation and soil, and causes it to circulate in the water. The result is a temporary increase in fish mercury levels, which then return to normal over a 10 to 30-year period, depending on the fish species and reservoir type.

2013 HIGHLIGHTS

- New fish consumption guides for Baie-James and Côte-Nord region reservoirs were produced in conjunction with the Cree Board of Health and Social Services of James Bay, Centre régional de santé et de services sociaux de la Baie-James, North Shore Health and Social Services Agency and Institut national de santé publique. More than 20,000 copies were printed.

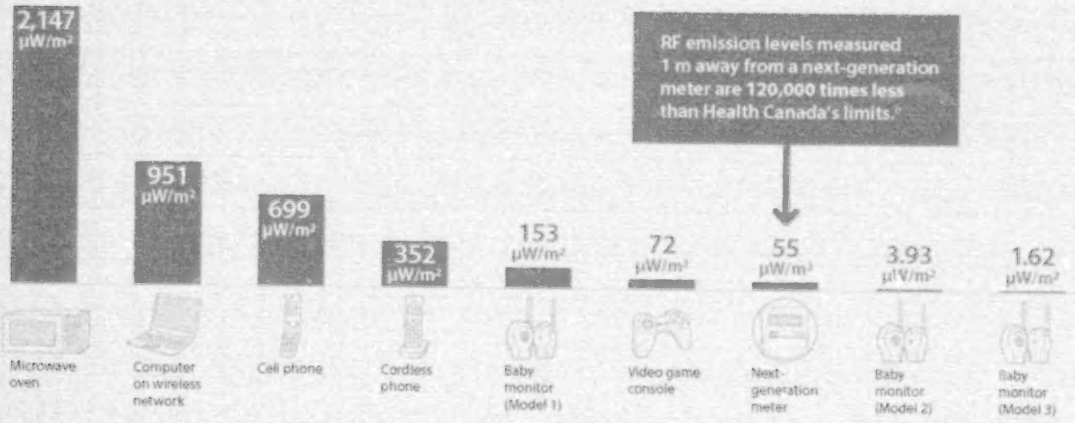
NOISE

Hydro-Québec endeavors to reduce noise pollution in sensitive residential districts. Quieter equipment is installed when new substations are built and equipment that has reached the end of its service life is replaced. When reduction at source does not suffice, the company takes measures, such as installation of sound barriers, to lower noise whenever possible.

2013 HIGHLIGHTS

- The effect of weather on noise propagation was studied at various locations more than 100 m away from power substations. A good correlation was observed between the weather information collected and noise readings obtained with the MAPLE sound-level meter. For example, a temperature inversion amplifies noise, which can be heard from quite a distance, even when the source noise level remains constant. Also, a light breeze blowing from a substation toward a receiver more than 100 m away increases noise perception. The study will continue in 2014.

MEAN POWER DENSITY MEASURED NEAR COMMON HOUSEHOLD DEVICES
Tests by the Centre de recherche industrielle du Québec (CRIQ)[a]



a) Source: For details on the measurement protocol used to obtain these values, see *Rapport d'essais de compatibilité électromagnétique, Mesures comparatives des compteurs avancés*, CRIQ file 670-43736-5.

b) Limit recommended by Health Canada: 6,000,000 µW/m².

FACILITY SECURITY AND PUBLIC SAFETY

While keeping a close watch on its facilities, Hydro-Québec conducts awareness campaigns to promote safe behavior and inform people about the hazards existing near electrical and hydropower facilities, as well as the hazards involved in unsafe use of electricity.

2013 HIGHLIGHTS

- As part of a security awareness campaign, the toll-free number used to report risks to personal safety or company assets received 2,730 calls (2,453 in 2012). About 47% of the calls reported thefts.
- Early in the summer, a video was broadcast on safety around Hydro-Québec's hydropower facilities.

ELECTRICAL ACCIDENTS – 2013

	INCIDENTS	DEATHS
Public – Hydro-Québec facilities	8	1
Public – use of electricity	1	0
Skilled workers – Hydro-Québec facilities	8	0
Skilled workers – use of electricity	2	0
Hydro-Québec employees	122	0
Total	**141**	**1**

Public. Tree pruning and felling were involved in 60% of the incidents reported in 2013, which included one tragic fatality. The other causes varied: contact of a conductor with a metal bar, a sailboat mast with a medium-voltage line and a conductor with a ladder.

Skilled workers. Half of the incidents recorded were caused by bucket-truck or crane booms that remained extended and came into contact with Hydro-Québec equipment. The other incidents involved poor work methods, contact between a conductor and scaffolding or a ladder, and contact between a telecommunications cable and tree branches while using a binding machine.

EMPLOYEE HEALTH AND SAFETY

Whether in R&D, training, monitoring or field operations, Hydro-Québec considers workers' health and safety to be of prime importance.

2013 HIGHLIGHTS

- Occupational health and safety training: 17,935 registrations.
- Number of participants in health awareness and promotion activities: 7,080.

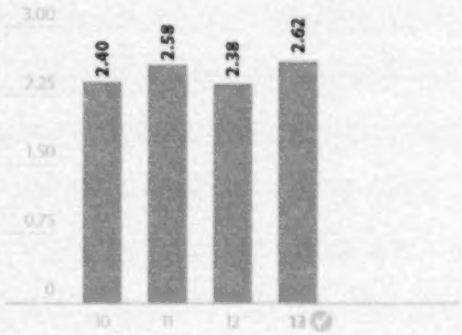
HEALTH CARE ON REMOTE JOBSITES

As prime contractor, Hydro-Québec provides front-line health care for workers on remote jobsites. Nursing staff is available, as well as telephone medical assistance at any time of day or night.

2013 HIGHLIGHTS

- On 12 jobsites, where there are an average of 2,324 workers each month, about 30 nurses conducted 9,020 consultations. In 13% of the cases, telephone assistance from an on-duty physician was required and in 3% of the cases, evacuation was needed to obtain specialized care.
- Nurses at Hydro-Québec health centres in northern Québec are also asked to care for people who are passing through areas where health services are limited. About 642 consultations involved such people: 11% required medical assistance and 3% had to be evacuated.

WORK-RELATED ACCIDENT FREQUENCY[a]



a) Per 200,000 hours worked.

Every year, Hydro-Québec reminds the general public about the hazards of pruning trees near power lines, often through ads published in print media.

HUMAN RESOURCES

Olivier Francoeur and Steven Landry, automation electronics technicians, at work in Chute-Allard generating station.

Hydro-Québec employs more than 20,000 people in about 150 work locations throughout Québec. The company fosters a healthy, motivating workplace that encourages employees to give their best and contribute to the company's success.

WORKFORCE

As at December 31, 2013, Hydro-Québec had 20,243 employees. Compared to 2011, the number of employees has dropped by 2,258 through attrition and increased efficiency.

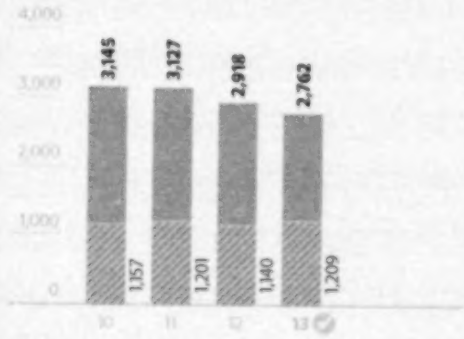
TRAINING AND SUCCESSION

In the past four years, 4,707 employees have retired and Hydro-Québec has taken the necessary steps to preserve and renew essential know-how in management and core businesses.

2013 HIGHLIGHTS

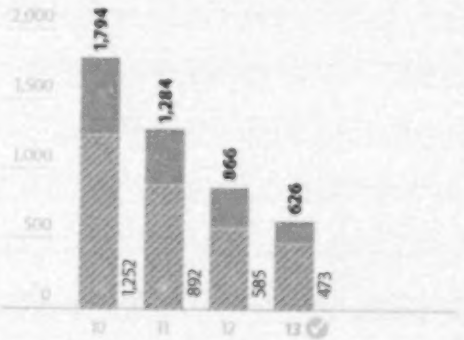
- 2.8% of the payroll was earmarked for employee training programs.
- 2,155 employees participated in at least one environmental and sustainability training activity. The 50% target for employees set for the company in Québec's Government Sustainable Development Strategy was achieved in 2012.

ELIGIBILITY AND RETIREMENTS (number)



Employees eligible for retirement
Retirements

NEW EMPLOYEES RECRUITED (number)



New employees recruited
New employees under age 35

- The leadership development program began for 130 supervisors and middle managers. In the current business climate, managers need skill in sharing the company's vision and business concerns to achieve sustainable performance. Since 2010, 420 managers have completed this program.
- As a founding partner of the Institute of Electrical Power Engineering (IEPE), Hydro-Québec awarded 15 Jean-Jacques-Archambault academic scholarships and 36 traveling scholarships to IEPE students. Since the Institute was founded in 2001, the company has hired 177 of its graduates.

INTERNSHIPS (number)

	2010	2011	2012	**2013**
University internships (excluding IEPE)	403	303	268	227
IEPE internships	37	22	18	16
College internships	54	51	39	32
Total	**494**	**376**	**325**	**275**

HYDRO-QUÉBEC WORKFORCE

	2010	2011	2012	**2013**
Permanent workforce (number)	19,521	19,415	18,926	17,861
Temporary workforce (number)	3,571	3,086	2,670	2,382
Average age	45.2	45.2	45.4	45.6
Target group representation (%)				
Women	30.9	31.1	30.6	30.0
Aboriginals	0.8	0.8	0.9	1.0
Ethnic minorities	1.2	1.3	1.4	1.4
Visible minorities	2.6	3.0	3.1	3.2
People with disabilities	1.2	1.1	1.1	1.0

WORK ENVIRONMENT AND EMPLOYEE ENGAGEMENT

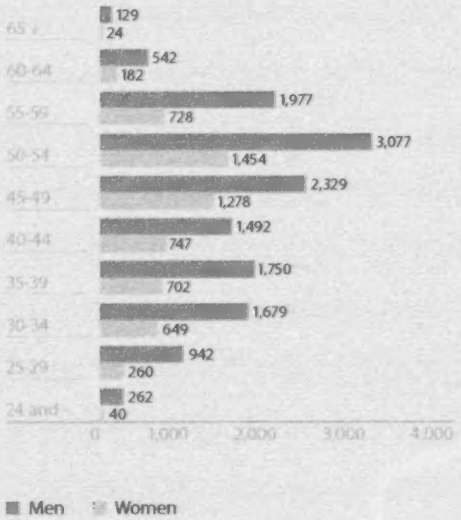
Work organization, support structures and definition of responsibilities are keys to good performance by employees and the company. In recent years, a number of projects have improved the company's efficiency. This has resulted in organizational and work process restructuring, which has placed demands on employees' adaptability. To limit the repercussions, Hydro-Québec has put substantial effort into reassigning people who have lost their jobs.

2013 HIGHLIGHTS

- Seven of the eight collective agreements governing working conditions for Hydro-Québec employees, 84.5% of whom are unionized, were renewed for a five-year period. Negotiations with the Syndicat des technologues will begin in 2014 after their collective agreement expires.
- According to the employee survey, the overall employee engagement index was 61%. Action has been taken to foster a culture of greater engagement.
- The healthy, engaging work environment awareness campaign reminded all employees of the importance of their commitment and healthy workplace behavior. More than 1,800 employees responded to *Questions of the Week* on these topics. Over 100 salaried employees attended training intended to stimulate their dedication to a healthy work environment and a culture of engagement, and on preventing harassment.
- 230 employees and managers attended harassment prevention training offered jointly by Hydro-Québec and bargaining units of the Canadian Union of Public Employees.

Audiovisual technicians Christine Fauconnier and Alain Morisset have their studio at Hydro-Québec's head office.

EMPLOYEE AGE PYRAMID



INVESTING IN THE COMMUNITY

Two young visitors at the Beauharnois generating station interpretation centre. The centre was redesigned this year with a new exhibit, *Beauharnois Generating Station: Exceptional since 1932*.

In addition to supporting regional economic vitality with investments in the power system, Hydro-Québec helps improve quality of life by investing in communities. Such investments totaled $31 million in 2013.

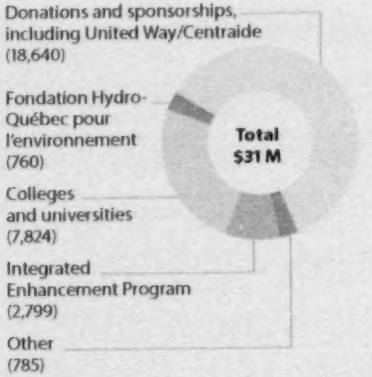
DONATIONS AND SPONSORSHIPS

Every year, Hydro-Québec devotes part of its average net income to donations and sponsorships. In order to choose between the many requests it receives, the company applies its Sponsorship Policy and fair selection criteria that reflect its values. With sustainability in mind, it encourages projects that support its role as a corporate citizen, maintain or improve community relations, or promote its strategic objectives, programs and services.

2013 HIGHLIGHTS

- Donations and sponsorships amounted to $18.6 million: the $2.5 million for United Way/Centraide was added to the $2.2 million raised by employees and pensioners.
- A $50,000 sponsorship went to the Orchestre Métropolitain, an international-calibre orchestra; the majority of its musicians were trained in Québec.

COMMUNITY INVESTMENTS – 2013 ($ '000)


Donations and sponsorships, including United Way/Centraide (18,640)
Fondation Hydro-Québec pour l'environnement (760)
Colleges and universities (7,824)
Integrated Enhancement Program (2,799)
Other (785)
Total $31 M

The Other category includes Youth Products ($558,000), the art collection ($200,000) and presentations at universities and colleges ($27,000). Contributions to institutions of higher education are shown on page 51.

EXCLUSIVE WEB CONTENT

- Donation and Sponsorship Policy
- Submit a request for a donation or sponsorship
- Donations and sponsorships granted in 2013
- Integrated Enhancement Program
- Fondation Hydro-Québec pour l'environnement
- Youth awareness
- Hydro-Québec art collection
- Industrial tourism
- International influence and cooperation
- Guest speakers from Hydro-Québec – Invite a guest speaker from Hydro-Québec!

- A $76,000 sponsorship went to Special Olympics Québec to enrich the lives of individuals with an intellectual disability through sports. More than 5,550 athletes are registered in recreational or competition programs offered throughout the province.

INTEGRATED ENHANCEMENT PROGRAM

To offset the residual impacts of its transmission projects, especially on the landscape, Hydro-Québec's Integrated Enhancement Program (IEP) pays the communities concerned 1% of the value authorized for the planned facilities. The funds are used for local initiatives that enhance the environment or improve municipal, community or recreational infrastructure, or for regional, tourist or Aboriginal community development. Since the IEP was created in 1985, Hydro-Québec has disbursed $116 million for a total of 1,168 initiatives.

2013 HIGHLIGHTS

- Construction of a new 735/315-kV section at Bout-de-l'Île substation: funding of $1,022,000 was given to the borough of Rivière-des-Prairies–Pointe-aux-Trembles to develop public access to the Saint-Laurent (St. Lawrence River) in eastern Montréal, redevelop Parc Armand-Bombardier and create partially covered outdoor dance floors in Dollard-Morin and Saint-Jean-Baptiste parks. The borough's residents will have access to a wider selection of recreational services. (Montréal)
- Reinforcement of the 230-kV and 120-kV system supplying the Bécancour industrial park: funding of $15,200 was contributed to the town of Bécancour to replace the arena's refrigeration system. The Wôlinak Abenaki band council received $15,200 to build a trail extending Promenade Leblanc and linking it to the bicycle path and Boulevard Danube. (Centre-du-Québec)

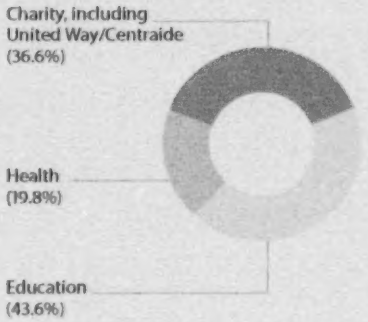
With funding of $177,000 from Hydro-Québec's IEP, the town of Port-Cartier, in the Côte-Nord region, inaugurated a new skating rink in February with the help of students from Dominique-Savio school, citizens and local elected representatives. The rink's asphalt base will enable it to be used for various sports in summer as well as in winter.

FUNDING AND FINANCIAL COMMITMENTS – INTEGRATED ENHANCEMENT PROGRAM

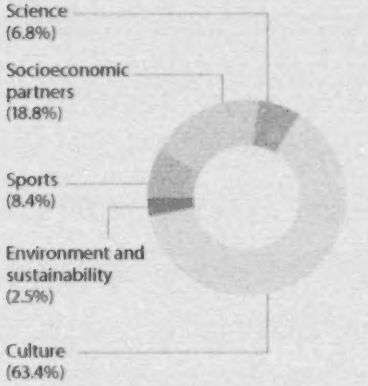
	2010	2011	2012	**2013**
Number of initiatives	32	45	36	26
Hydro-Québec funding ($'000)	5,910.3	2,262.6	2,494.8	2,798.9
Community funding ($'000)	2,932.5	4,395.9	6,189.5	4,547.8
Project value ($'000)	8,842.8	6,658.5	8,684.4	6,346.0

Hydro-Québec's annual funding varies depending on the number and size of transmission projects in progress. The 2010 amount is substantially higher because of the large sum allocated for construction of Outaouais substation.

BREAKDOWN OF DONATIONS (%)



BREAKDOWN OF SPONSORSHIPS[a] (%)



a) Excludes funding by the Fondation Hydro-Québec pour l'environnement.

- Connection of Courbe-du-Sault generating station: the municipality of Rivière-au-Tonnerre received $69,849 to renovate its outdoor skating rink. The project enlarged the structure and made it more versatile so it can be used year-round for various activities. (Côte-Nord)

FONDATION HYDRO-QUÉBEC POUR L'ENVIRONNEMENT

The Fondation Hydro-Québec pour l'environnement was established in 2001 to support the improvement and long-term protection of the environment. It helps honor the company's commitments relating to sustainability and responsible resource management. It funds tangible initiatives whose environmental and social benefits serve community interests in local communities across Québec. The projects it supports aim to protect, restore and enhance natural environments and educate target publics about local environmental issues.

2013 HIGHLIGHTS

- Funding of $52,000 was granted to the Centre d'interprétation du milieu écologique du Haut-Richelieu (in French only) to restore the main entrance to Mont Saint-Grégoire. The project involved planting trees along the forest edge to expand its area and developing a discovery trail on fallow land to educate visitors about the ecological importance of this type of natural environment. With time, the forest will take over naturally, resulting in a net gain in area for the Mont Saint-Grégoire forest. (Montérégie)
- Funding of $82,200 was granted to CAPSA (in French only), a watershed protection group, to develop a 24-hectare riverside park along the Rivière Saint-Anne in Saint-Raymond, near the city of Québec. Residents and visitors have access to a 1-km-long trail equipped with interpretation panels, three lookouts, a rest area on the beach and two reception areas at Rue Saint-Hubert and beside the Jacques-Cartier/Portneuf bicycle path. (Capitale-Nationale)

^^ The Fondation Hydro-Québec pour l'environnement funded the development of a 24-ha riverside park along the Rivière Sainte-Anne in Saint-Raymond near the city of Québec.

^ At the Romaine-2 jobsite in the Côte-Nord region, visitors, even youngsters, observe the progress in construction at the site.

COMMITMENTS – FONDATION HYDRO-QUÉBEC POUR L'ENVIRONNEMENT

	2010	2011	2012	**2013**
Projects supported	15	17	17	16
Regions involved	9	11	12	7
Amount granted ($'000)	957	556	757	760

OUR RESULTS

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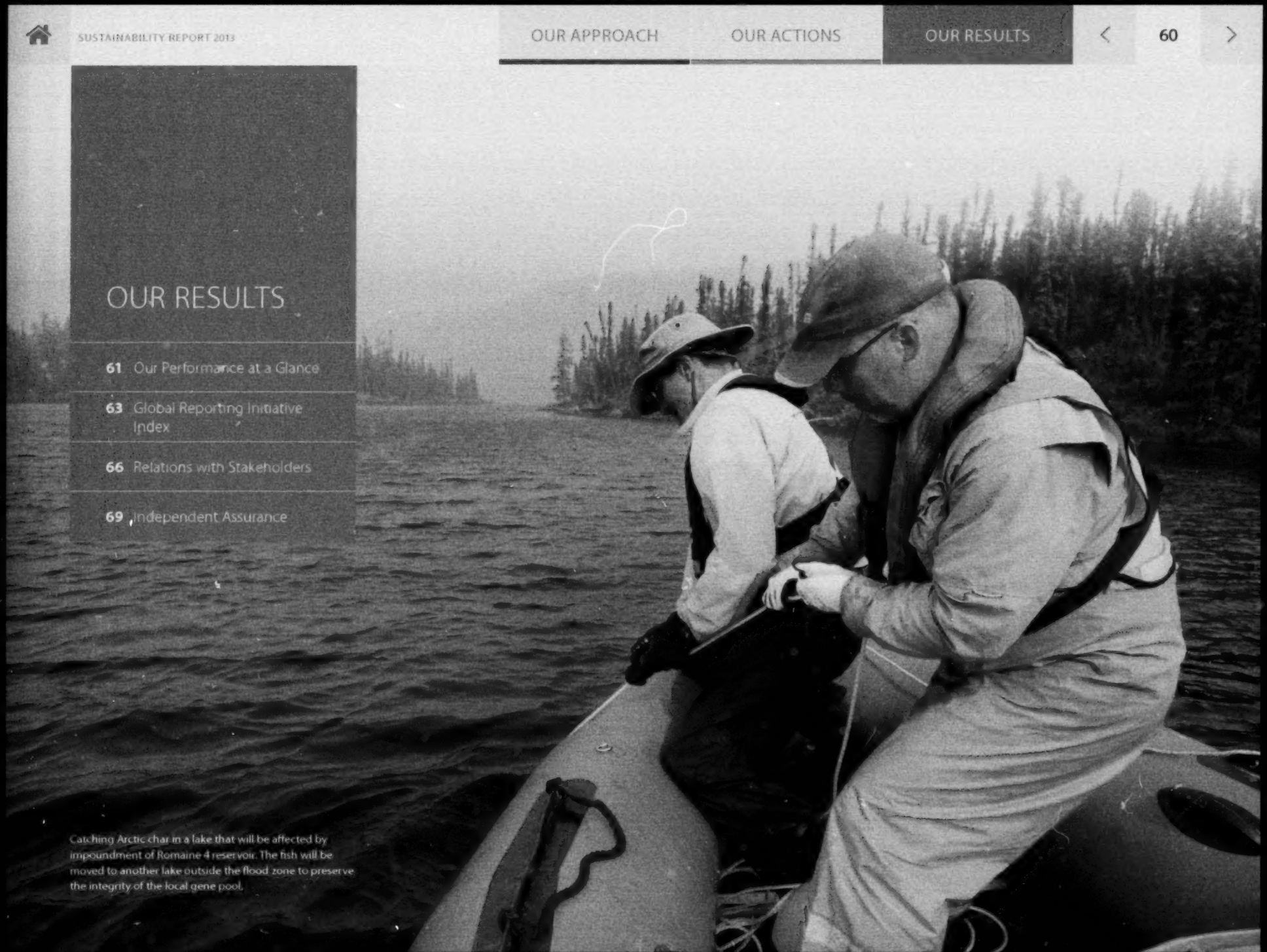
63 Global Reporting Initiative Index

66 Relations with Stakeholders

69 Independent Assurance



Catching Arctic char in a lake that will be affected by impoundment of Romaine 4 reservoir. The fish will be moved to another lake outside the flood zone to preserve the integrity of the local gene pool.

OUR PERFORMANCE AT A GLANCE

	2010	2011	2012	2013
ENVIRONMENT				
Net electricity generated by Hydro-Québec (GWh)	160,733	169,017	171,442	178,150
Total net electricity generated and purchased (GWh)	203,842	207,537	213,284	219,367
Renewable energy/total energy generated and purchased (%)	94	97	98	99
GHG emissions from thermal electricity generation (t CO_2 eq.)	211,809	215,036	215,325	220,098
SO_2 emissions from thermal electricity generation (t)	1,251	1,423	1,240	1,147
NO_x emissions from thermal electricity generation (t)	5,965	6,256	6,250	4,096
GHG emissions from the vehicle fleet (t CO_2 eq.)/total number of vehicles as at December 31[a]	58,426/5,441	57,363/5,497	52,140/5,370	51,891/5,376
Energy Efficiency Plan: energy savings (result/target) (GWh)[b]	997/718	1,014/648	1,039/693	619/553
Employees governed by an environmental management system (number)[c]	19,823	19,124	18,414	17,146
Environmental non-compliance notices (number)	51	30	31	38
Spills reported to the authorities (number)[d]/spills fully recovered (%)	747/87	762/86	830/72	999/74
Insulating oil recovered (thousands of litres)/reuse (%)	3,710/91.0	2,608/88.8	3,340/80.1	3,383/81.2
Water withdrawn (millions of m^3)[e]	not available	710	756	531
Area of transmission line rights-of-way treated mechanically (%)	71	78	97	99
Area of dikes and dams treated mechanically (%)	73	62	46	58
Underground hookups on the distribution system (%)	10.3	10.6	10.9	10.9

a) Data restated as a result of adoption of a new calculation method.

b) Excludes projects of the Québec government's Bureau de l'efficacité et de l'innovation énergétiques and the CATVAR project.

c) Decrease is attributable to workforce reduction. The percentage of employees governed by an environmental management system remained stable at 85%.

d) The 2013 increase is mainly attributable to increased monitoring of contractor activities on construction sites.

e) According to the *Regulation respecting the declaration of water withdrawals* which applies to thermal generating stations and some workcamps using more than 75 m^3 of water per day (excludes withdrawals for PPG Canada).

OUR PERFORMANCE AT A GLANCE

	2010	2011	2012	2013
SOCIAL				
Public satisfaction (very and somewhat satisfied) (%)	92	93	92	91
Funding and financial commitments – Integrated Enhancement Program ($M)/ number of initiatives	5.9/32	2.3/45	2.5/36	2.8/26 ✓
Fondation Hydro-Québec pour l'environnement ($'000)/number of projects funded	957/15	556/17	757/17	760/16 ✓
Donations and sponsorships ($M)[f]	18.3	18.0	17.7	18.6
Overall customer satisfaction index – other than Large-Power Customers (scale of 10)	7.6	7.5	7.5	7.5 ✓
System average interruption duration index (SAIDI) (minutes/customer)	139	163	150	165 ✓
Special payment arrangements for low-income customers (number)	41,161	61,255	57,567	66,913 ✓
Customer complaints and claims (number)	8,677	9,113	9,224	9,517 ✓
Total permanent and temporary workforce as at December 31	23,092	22,501	21,596	20,243 ✓
Employee engagement index (%)[g]	not available	73	69	61 ✓
Work-related accident frequency (per 200,000 hours worked)	2.40	2.58	2.38	2.62 ✓
Percentage of payroll invested in training	3.5	3.7	3.4	2.8 ✓
ECONOMY				
Electricity sales in Québec (TWh)[h,i]	169.5	170.0	168.4	173.3
Revenue from electricity sales inside and outside Québec ($M)[h,i]	11,810	11,972	11,636	12,610
Net result ($M)[h]	2,515	2,611	860	2,942
Dividend ($M)[h]	1,886	1,958	645	2,207
Water power royalties ($M)[h]	561	598	621	674
Total procurement of goods and services ($M)/Québec only (%)[h]	2,908/91	2,913/93	3,011/94	3,533/95
Public utilities tax ($M)[h]	262	244	252	245
Municipal and school taxes ($M)[h]	34	35	36	36
Funding for educational institutions – contributions, commitments, research chair funding and research contracts ($M)[j]	5.8	8.5	10.9	11.1 ✓

f) Includes Hydro-Québec's donation to United Way/ Centraide.

g) New index in 2011.

h) 2013 data extracted from Hydro-Québec's Annual Report.

i) Data from continuing operations.

j) 2013 figures include $3.2 million recorded as donations and sponsorships.

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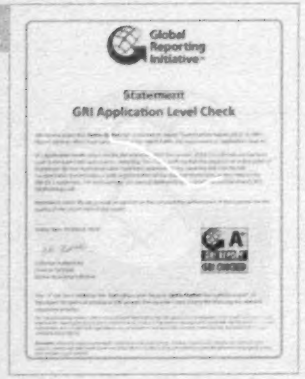
a) Disclosure number in bold: core indicator.
Disclosure number in regular type: additional indicator.


Global Reporting Initiative

Statement

GRI Application Level Check

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a) Disclosure number in bold: core indicator
Disclosure number in regular type: additional indicator

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a) Disclosure number in bold: core indicator
Disclosure number in regular type: additional indicator

RELATIONS WITH STAKEHOLDERS

Owing to the nature of its operations, Hydro-Québec has a presence throughout the province and maintains ongoing relations with its numerous stakeholders. Good dialogue is essential for preserving mutually beneficial relations, obtaining support for important activities and even reconciling diverging interests.

STAKEHOLDERS	EXAMPLES OF SHARED SUSTAINABILITY GOALS	EXAMPLES OF MEANS USED	2013 RESULTS
Customers	■ Service quality and fairness for customers ■ Reliability of electricity service and supply ■ Customer satisfaction ■ Communications with cultural communities ■ Energy savings ■ Tailored collection services for low-income customers and those with payment difficulties	■ Table of customer expectations and survey of customer satisfaction ■ Handling of complaints and claims ■ Translation services during the collections process ■ Energy efficiency partnerships ■ Collections working group	■ Overall customer satisfaction (p. 44, 62) ■ Complaints and claims (p. 44, 62) ■ System average interruption duration index (p. 43, 62) ■ Generation portfolio (p. 24–26) ■ Electricity purchases (p. 24–26) ■ Energy Efficiency Plan (p. 20–22) ■ Payment arrangements with low-income customers (p. 14, 45, 62)
Government authorities	■ Contribution to government strategies (e.g., Québec Energy Strategy, Government Sustainable Development Strategy, strategy to ensure the occupancy and vitality of territories, Québec's Agenda 21 for culture, Québec Research and Innovation Strategy, Climate Change Action Plan, Transportation Electrification Strategy) ■ Application of sustainability principles	■ Partnerships and participation in joint committees ■ Company's strategic plan ■ Adoption of internal action plans	■ Sustainable Development Action Plan (p. 13–16) ■ Technological innovation (p. 48–51) ■ Climate change (p. 17–19) ■ Transportation electrification (p. 50, 51) ■ People with disabilities (p. 56)
Local and Aboriginal communities	■ Acceptability of projects ■ Harmonious integration of facilities into the environment ■ Respect for and preservation of local values and cultures ■ Social and economic development	■ Teams in charge of community and Aboriginal relations ■ Liaison committees with municipal associations ■ Support for local initiatives in connection with construction projects ■ Regional economic spinoffs committees	■ Progress of generation and transmission projects (p. 28–36) ■ Follow-up on projects in operation (p. 37, 38) ■ Public participation (p. 30, 34, 39–40) ■ Liaison committee for Hydro-Québec and the Québec federation of municipalities (p. 40) ■ Integrated Enhancement Program (p. 58, 62) ■ Regional economic spinoffs committees (p. 30, 42)

RELATIONS WITH STAKEHOLDERS

STAKEHOLDERS	EXAMPLES OF SHARED SUSTAINABILITY GOALS	EXAMPLES OF MEANS USED	2013 RESULTS
Investors	■ Company profitability ■ Good governance ■ Risk management ■ Ethical behavior	■ Periodic meetings with investors ■ Dedicated Web site for investor relations ■ Annual Report ■ Codes of conduct	■ Financial results (p. 11, 62) ■ Climate change (p. 17–19) ■ Codes of conduct (p. 10) ■ Contribution to the Québec economy (p. 28, 31, 41–42, 62)
Educational institutions	■ Advancement of knowledge ■ Development of a skilled workforce ■ Education on key issues related to electricity	■ Support for universities ■ Research partnerships and open innovation ■ Internships for university and college students ■ Knowledge sharing	■ Support for universities (p. 51, 62) ■ Funding of IEPE (p. 56) ■ Number of internships (p. 56)
Non-governmental organizations	■ Establishment of mutually beneficial relationships	■ Working group with consumer associations ■ Various partnerships ■ Community investments ■ Liaison committee with the Union des producteurs agricoles (UPA) [Québec farm producers' union]	■ Working group with consumer associations (p. 45) ■ Liaison committee with the Union des producteurs agricoles (p. 40) ■ Transportation electrification (p. 14–15, 50–51) ■ Community investments (p. 57–59, 62)
General public	■ Public health and safety ■ Respect for the environment ■ Acceptability of projects ■ Social and economic development	■ Execution of studies and dissemination of information on public health and safety ■ Web site and toll-free line ■ Videos ■ Public consultation ■ Regional economic spinoffs committees	■ Electric and magnetic fields (p. 52) ■ Information on radio-frequency emissions (p. 53) ■ Noise (p. 53) ■ Studies on mercury (p. 53) ■ Safety of facilities (p. 54) ■ Regional economic spinoffs committees (p. 30, 42) ■ Public satisfaction (p. 62)
Suppliers	■ Sustainable procurement practices ■ Economic spinoffs in Québec ■ Ethical behavior	■ Participation in ECPAR, a group promoting sustainable procurement practices ■ Dedicated Web site for suppliers ■ Economic spinoffs committees ■ Code of conduct	■ Sustainable procurement (p. 15) ■ Centre de formation en entreprise et récupération [business and recycling training centres] (p. 47) ■ Procurement within Québec (p. 42, 62) ■ Economic spinoffs committees (p. 30, 42)

RELATIONS WITH STAKEHOLDERS

STAKEHOLDERS	EXAMPLES OF SHARED SUSTAINABILITY GOALS	EXAMPLES OF MEANS USED	2013 RESULTS
Employees	■ Sustainability principles applied to daily activities ■ Healthy, safe work environment ■ Training and skill development ■ Competent succession	■ Sustainability awareness and training ■ Survey on employee engagement ■ Workplace health and safety committees	■ Employees with sustainability training (p. 55) ■ Work-related accident frequency (p. 54) ■ Employee engagement (p. 56, 62) ■ Hydro-Québec workforce (p. 55, 56)
Unions	■ Harmonious labor relations ■ Healthy and safe work environment	■ Training programs offered by the company and unions ■ Workplace health and safety committees	■ Harassment prevention training (p. 56) ■ Collective agreements in effect (p. 56)

INDEPENDENT ASSURANCE

To Hydro-Québec Management

The Bureau de normalisation du Québec has been engaged to conduct an independent evaluation of Hydro-Québec's *Sustainability Report 2013*, which covers the period from January 1 to December 31, 2013 (Report). The Report preparation and content are the responsibility of Hydro-Québec. Our role consists in providing an independent opinion of this report.

LEVEL OF ASSURANCE AND BASIS FOR OUR OPINION

Our evaluation focused on the systems, processes and quantitative data to achieve a moderate level of assurance. It consisted in reviewing the extent of adherence to the AA1000APS AccountAbility Principles Standard (2008) and to the reporting principles for defining quality in the Global Reporting Initiative G3.1 guidelines. We also assessed the reliability of the sustainability performance information identified by the ◌ symbol in the Report.

ASSURANCE TEAM

The assurance team for the Report was composed of professionals, supervised by a Lead Sustainability Assurance Practitioner, and included specialists in measurement of environmental, social and economic aspects. The team members confirm that they are independent.

ASSURANCE APPROACH

The assurance evaluation, conducted between January and March 2014, was based on the information collected and consisted of:

- review of the main risks and issues in the industry
- review of the sustainability-related strategies, policies, objectives, management systems and measurement and reporting procedures used by Hydro-Québec
- interviews with managers in order to understand how Hydro-Québec deals with the key challenges of sustainability and how the concept of sustainability is implemented in the company
- interviews with over 60 staff members to learn, among other things, what measures are implemented to facilitate dialogue with stakeholders and understand the processes for collecting and presenting information about sustainability performance
- review of the Report for any anomalies, particularly with regard to the information collected, and the trends perceived in the data
- verification of over 250 data items selected from the Report by Hydro-Québec and examination of data processing procedures
- collection and evaluation of evidence supporting the data.

INDEPENDENT ASSURANCE

ADHERENCE TO THE AA1000 PRINCIPLES

Inclusivity: *Does Hydro-Québec have a system that enables dialogue with stakeholders regarding aspects of sustainability?*

Hydro-Québec has a number of processes that show its commitment to dialogue with its stakeholders, regarding both projects and more general issues.

Materiality: *Does Hydro-Québec provide material information on the significant issues relating to its stakeholders' interests?*

The process used to determine the aspects to report appears to be consistent with the organization's significant issues and its stakeholders' interests, based on the Materiality Analysis conducted in 2011. We recommend that this process be updated for the next report.

Responsiveness: *Does Hydro-Québec have a system for responding to its stakeholders' concerns?*

In general, Hydro-Québec considers and responds to its stakeholders' concerns.

Quantitative information and conclusion

According to our assurance process, the following items were observed:

- the systems and underlying processes used for managing and reporting sustainability information are reliable
- the data selected for verification were on the whole obtainable and traceable, and the employees responsible at Hydro-Québec were able to demonstrate the origin, control methods and data interpretation in a satisfactory and transparent manner
- the sustainability performance disclosures in the Report appropriately reflect the environmental, social and economic performance of Hydro-Québec over the period covered by the Report.

Overall, the assurance team considers that, based on the approach used, the information contained in the *Sustainability Report 2013* appears fair in all material respects and presents a reliable account of Hydro-Quebec's sustainability performance achieved during the period.

Montreal, April 2, 2014

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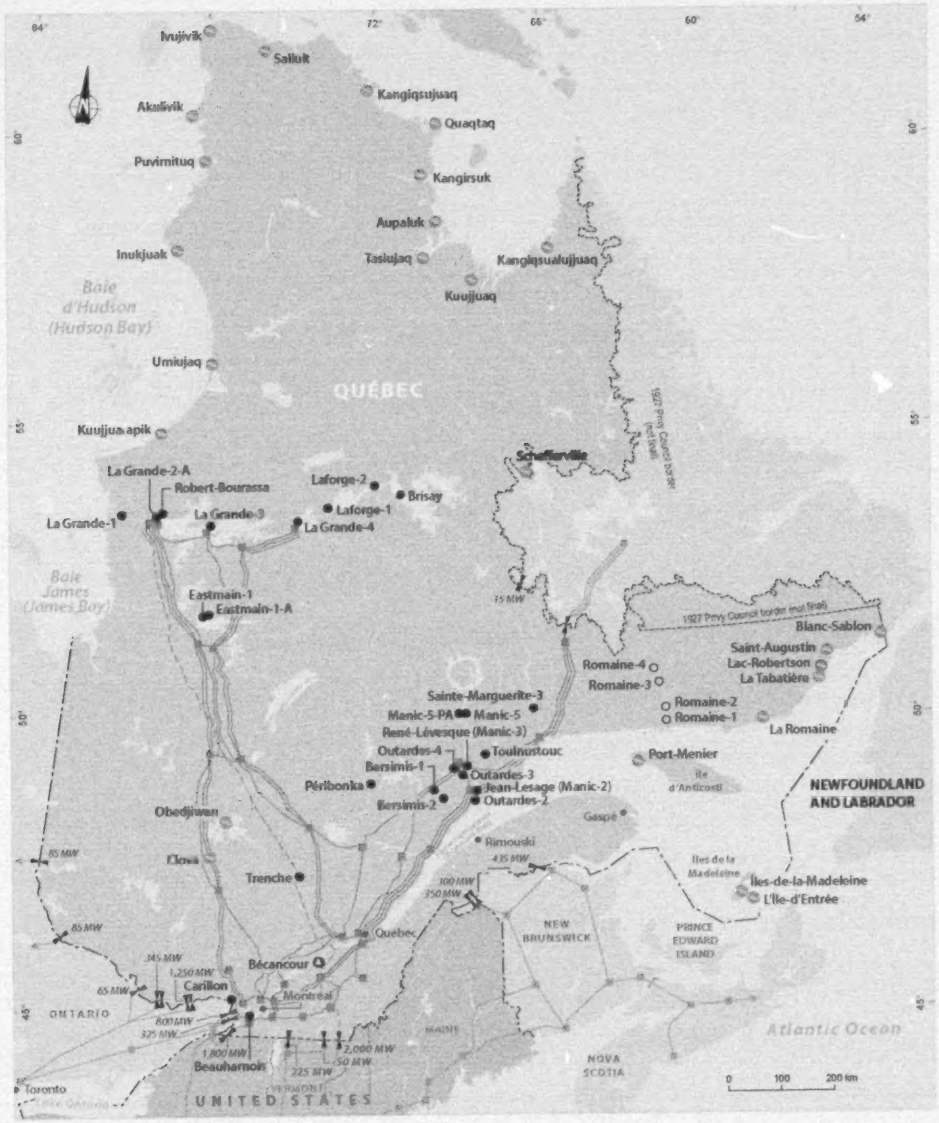
MAJOR FACILITIES AND GENERATING STATIONS SERVING OFF-GRID SYSTEMS



UNITS OF MEASURE

¢/kWh	cent or $0.01 per kilowatthour
$'000	thousands of dollars
$M	millions of dollars
$B	billions of dollars
V	volt (a unit for measuring voltage)
kV	kilovolt (one thousand volts)
W	watt (a unit for measuring power)
kW	kilowatt (one thousand watts)
MW	megawatt (one million watts)
GW	gigawatt (one billion watts)
Wh	watthour (a unit for measuring electric energy)
kWh	kilowatthour (one thousand watthours)
MWh	megawatthour (one million watthours)
GWh	gigawatthour (one billion watthours)
TWh	terawatthour (one trillion watthours)
MMBtu	million British thermal units
ppm	parts per million
t	tonne (metric ton)
g CO_2 eq.	g of CO_2 equivalent
t CO_2 eq.	tonne of CO_2 equivalent
kt CO_2 eq.	one thousand tonnes of CO_2 equivalent

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Legal deposit – 2nd quarter 2014
Bibliothèque et Archives nationales
du Québec
ISBN 978-2-550-70259-7

2013G255A

Ce document est également publié en français.

This is a translation of the original French text.